JVC

SERVICE MANUAL

PORTABLE COMPONENT SYSTEM

MODEL PC-W300 L/LB/LD

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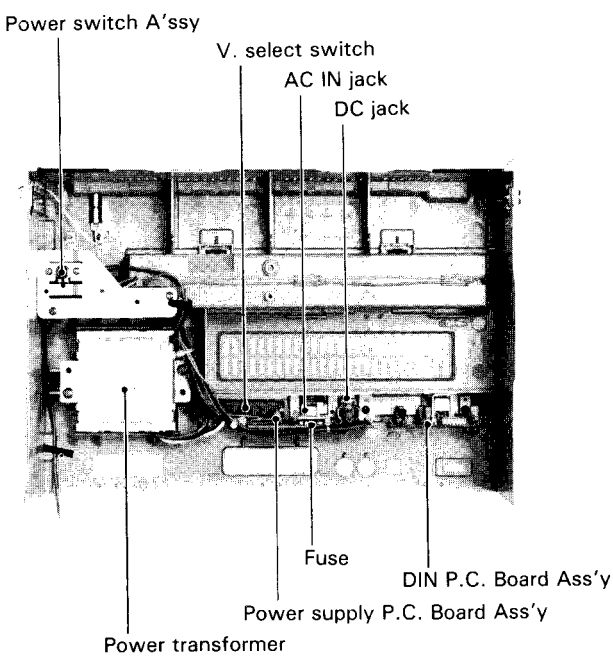
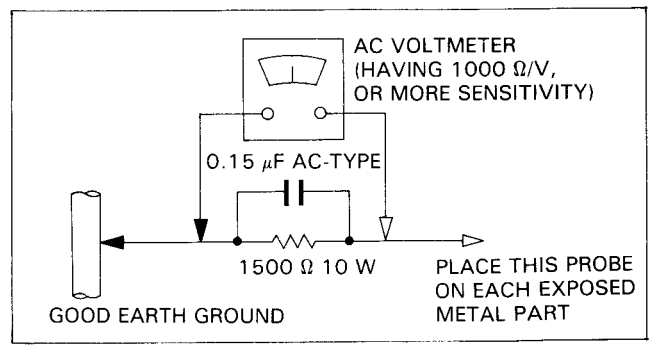
Safety Precautions

1. The design of this product contains special hardware. Many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by (⚠) on the schematics and parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and/or the like to be separated from live parts, high temperature part, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and they should be confirmed to be returned to normal, after re-assembling.



5. Leakage current check
   (Safety for electrical shock hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the Products (antenna terminals, knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method.
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.).
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s).
     This corresponds to 0.5 mA AC (r.m.s).



Features

1. **Complete double-cassette, auto-reverse component stereo deck.**
   - Consisting of 3 units with attachable/detachable speakers.
2. **Total output of 30 W (15 W + 15 W) max. (6 ohms).**
   - Music power of 70 W (35 W + 35 W) (6 ohms).
   - "U-Turn" Auto-reverse deck with soft-touch mechanism. (Deck A for playback, Deck B for recording and playback.)
   - Pressing the signal SYNCHRO START button permits double-speed dubbing of both sides of cassette.
   - During double-speed dubbing, it is possible to enjoy other sources.
   - Relay play facility from deck A to B.
   - One-touch recording facility for deck B.
   - Auto-tape select mechanism for deck A.
   - Single music scan facility in both directions for deck A.
     "Under license of Staar S.A., Brussels, Belgium".
   - Timer start mechanisms (deck A for playback, deck B for recording and playback).
   - Microphone mixing facility with volume control during recording/playback.
   - 3-position tape select switch for deck B.
   - Can be connected to a turntable.
   - 5-LED peak level indicators.
   - Built-in ANRS/DOLBY* B NR (Noise Reduction).
   - 4-way power supply (AC, batteries, rechargeable battery pack and car battery).
3. **2-way bass-reflex type speaker systems — 12 cm (5") woofers and 5 cm (2") tweeters.**
   - Using high ceramic cone paper for both the woofers and tweeters.

*Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
*"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Specifications

Speakers	: 12 cm (5") × 2, 5 cm (2") × 2
Frequency ranges	: FM 88—108 MHz AM 540—1600 kHz SW 6—18 MHz LW 150—350 kHz
Antennas	: Telescopic antenna for FM & SW Ferrite core antenna for AM & LW
Track system	: 4-track 2-channel stereo
Motors	: Electronic governor DC motor for capstan × 2 (for Deck A & B)
Heads	: Deck A; METAPERM head for playback Deck B; METAPERM head for recording/playback, 2-gap ferrite head for erasure
Tape speed	: At normal speed; 4.8 cm/sec (1-7/8 inch/sec) At double speed; 9.5 cm/sec (3-3/4 inch/sec)
Frequency response	: 30—17,000 Hz (with metal tape) 30—16,000 Hz (with chrome tape) 30—15,000 Hz (with normal tape)
Signal-to-noise ratio	: 54 dB (weighted, at 1 kHz, 3% THD with metal tape) Imporved by 5 dB at 1 kHz and by 10 dB at 5 kHz or more with ANRS/DOLBY B NR ON
Wow and flutter	: 0.09% (WRMS)
Fast forward time	: Approx. 110 sec. (C-60 cassette)
Rewind time	: Approx. 110 sec. (C-60 cassette)
Input terminals	: MIC × 2 (Min. input level: 0.7 mV (−63 dBV) Matching impedance: (200Ω—2 kΩ) PHONO × 2 (2.5 mV/47 kΩ) AUX × 2 (300 mV/47 kΩ)
Output jacks	: TAPE REC × 2 (300 mV/4.7 kΩ), SPEAKER × 2 (matching impedance 6—8 Ω), PHONES × 1 (Output level: 0~3 mW/8 Ω, Matching impedance: (8 Ω—1 kΩ)
Power output	: Max. 30 W (15 W + 15 W) (6 Ω) Music power 70 W (35 W + 35 W)(6 Ω)
Power sources	: AC 240/220/110 V, 50/60 Hz DC 12 V ("R20" × 8 or optional BP-12K), Ext. DC (car battery via optional CN-332 car adapter)
Power consumption	: 65 watts (with power switch on) 0.7 watt (with power switch off)
Dimensions	: 663(W) × 312(H) × 224(D) mm (23-1/2" × 10-3/8" × 7-5/8") including speakers connected with joint fixtures, pads, knobs and handle
Weight	: Approx. 11.2 kg (24.6 lbs) with batteries
Accessories provided	: 2 speaker cords (50 cm/1.64 ft) Carrying handle AC power cord

Design and specifications are subject to change without notice.

Names of Control and Connection Terminals

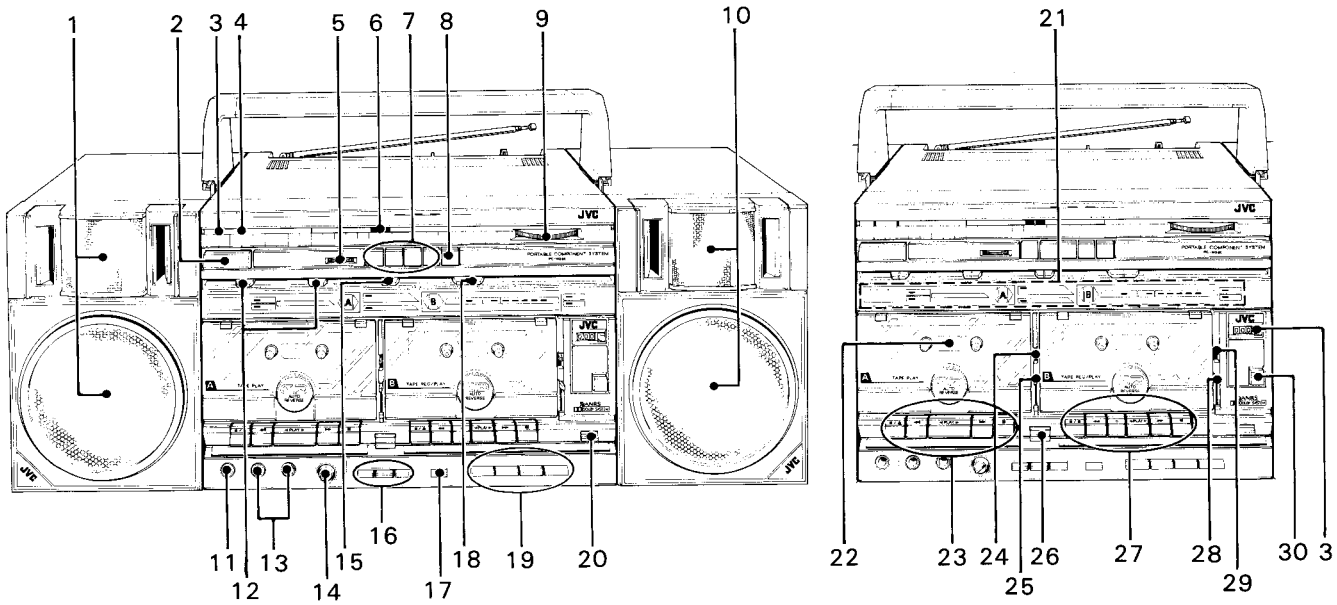


Fig. 1

1. Left speaker
2. POWER switch
3. TUNING indicator
4. FM STEREO indicator
5. FINE TUNING knob for SW reception
6. Dial scale
7. BAND switches (FM/AM/SW/LW)
8. FM MODE/MUTING switch
9. TUNING knob
10. Right speaker
11. PHONES (Headphones) jack
12. BASS/TREBLE controls
    To adjust the output level of speakers or headphones. The center click position is the standard position. Slide in the MAX direction to boost the output level and in the MIN direction to lower it.
    BASS:
    To control the lower frequencies.
    TREBLE:
    To control the higher frequencies.
13. MIC (microphone) jacks
14. Microphone/mixing microphone volume control (MIC/MIX MIC VOL)
15. BALANCE control
16. Tape select switch (Deck B)
17. NR SYSTEM switch
18. VOLUME control
19. FUNCTION switch
    TAPE. TUNER. AUX. PHONO.
20. REC MUTE button
21. Indicators (from left to right)
    MUSIC SCAN [MS] , TAPE. (NORM, METAL/CrO_2)
    DIRECTION ⟨A⟩ , MODE. (SYNCHRO REV./Hight speed)
    DIRECTION ⟨B⟩ , REC. BATTERY. LEVEL INDICATOR. NR SYSTEM
22. Cassette holder (Deck A)
23. Cassette operation buttons (Deck A)
    ■/▲ STOP/EJECT button
    ◄◄ (Rewind) button
    ◄ PLAY ► button
    ►► (Fast forward) button
    ▮▮ PAUSE button
24. REVERSE MODE switch (Deck A)
    [⇄] : Single playback.
    [⇉] : Full playback.
    [↻] : Continuous play.
25. DIRECTION switch (Deck A)
26. SYNCHRO START button
    When double-speed dubbing is performed, pressing this button allows deck A play and deck B record to start simultaneously.
27. Cassette operation buttons (Deck B)
    ■/▲ STOP/EJECT button
    ◄◄ (Rewind) button
    ○ REC button
    ◄ PLAY ► button
    ►► (Fast Forward) button
    ▮▮ PAUSE button
28. DIRECTION switch (Deck B)
29. REVERSE MODE switch (Deck B)
    [⇄] : Single recording or playback.
    [⇉] : Full recording or playback.
    [↻] : Continuous playback.
30. SYNCHRO REVERSE/A ► B RELAY switch
    (▬) ON:
    Set to this position so the tapes of deck A and deck B reverse simultaneously or to operate relay play from deck A to deck B. In this case, set the REVERSE MODE switch of deck A to the or position.
    (▬) OFF:
    Set to this position when you don't want synchro reverse or relay play.
31. COUNTER/reset button (Deck B)

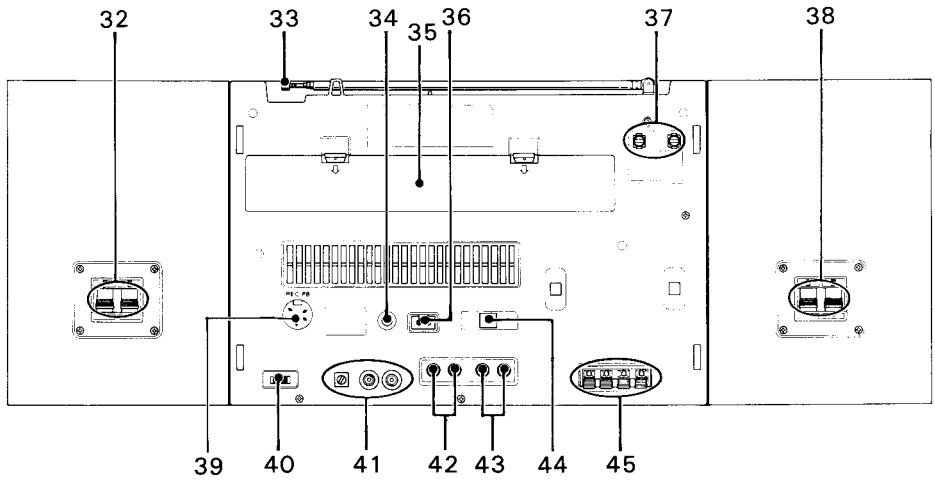


Fig. 2

32. SPEAKER (R) terminals
33. Telescopic antenna for FM or SW reception
34. 12 V DC IN jack (⊖-⊕ 3.15 A)
    When using a car battery (DC 12 V), connect this optional exclusive car adapter (CN-332) to this jack.
35. Battery cover
    Insert 8 "R20" batteries or the optional rechargeable battery (BP-12K).
36. AC IN (AC input) terminal
37. FM EXT ANT terminals for FM & SW reception (L/LB Version)
38. SPEAKER (L) terminals
39. DIN Jack (Rec/PB)
40. BEAT CUT switch
41. PHONO jacks and GND terminal
42. AUX jacks
43. TAPE (REC) jacks
44. VOLTAGE SELECTOR
45. SPEAKER terminals

Various Usages

Mounting the Speaker

1. As illustrated, fix (A) to (B) firmly and slide down the speaker box securely.
2. Join the other speaker in the same manner as above.

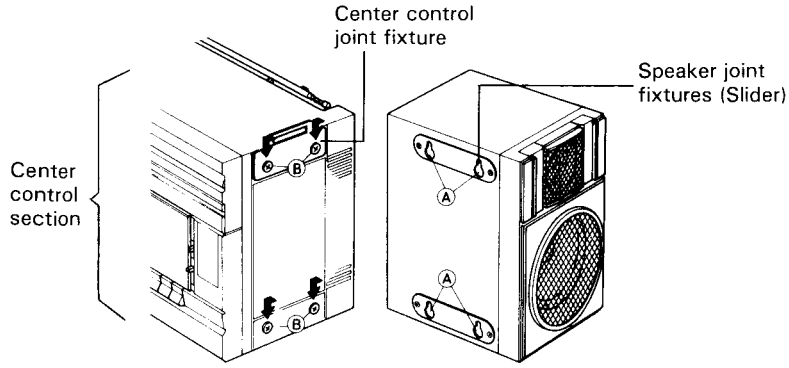


Fig. 3

Mounting the Handle

1. Push the handle grip lock up, in the direction of arrow (1).
2. Pressing mark △ in the direction of arrow (2), secure the handle grip to the slot indicated by arrow (3).
3. Push the hand grip lock down to close it.
   Close the other hand grip lock in the same manner.

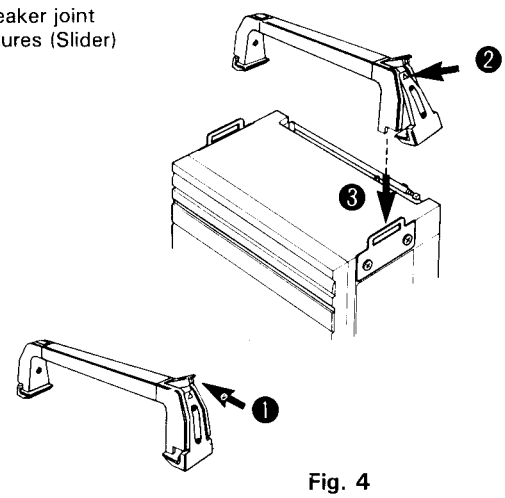


Fig. 4

Location of Main Parts

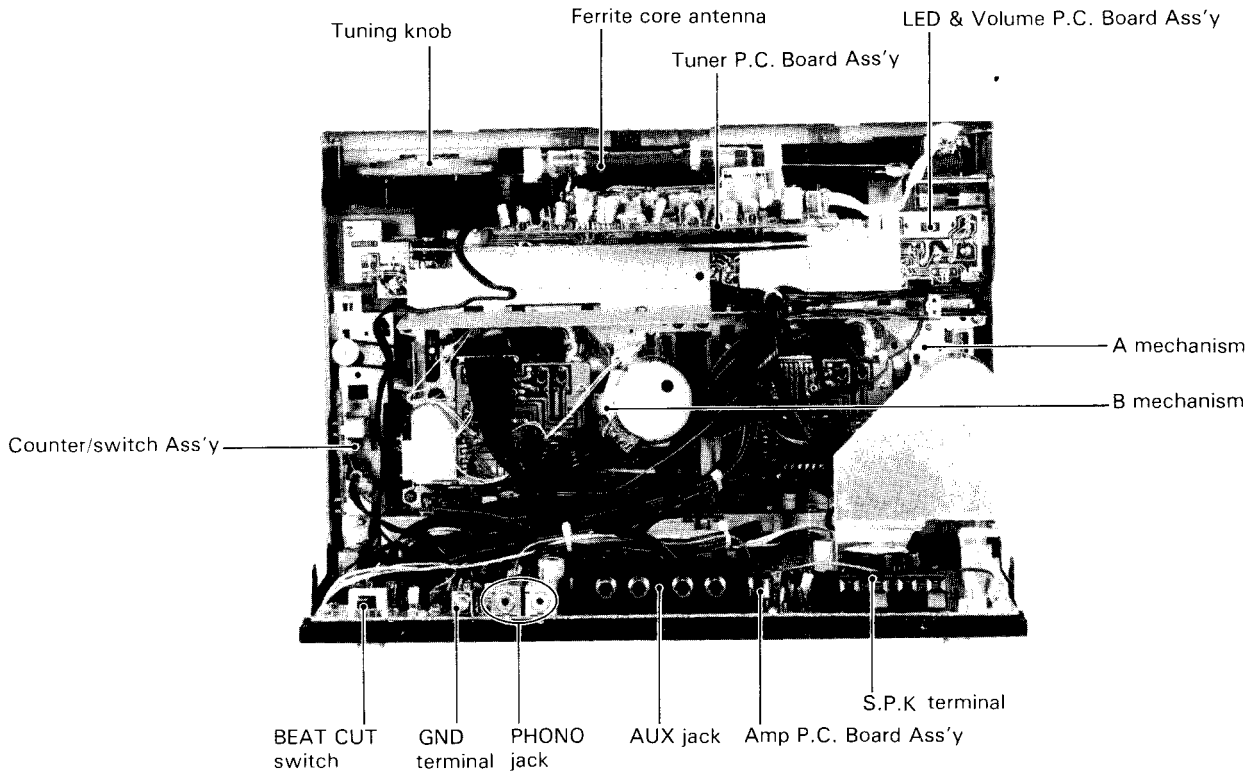


Fig. 5

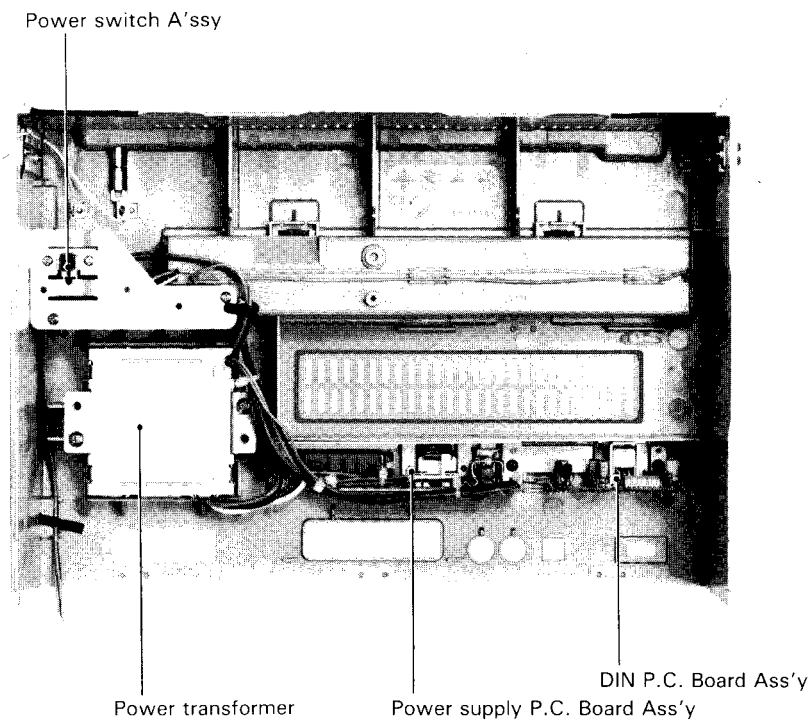


Fig. 6

Mechanism section

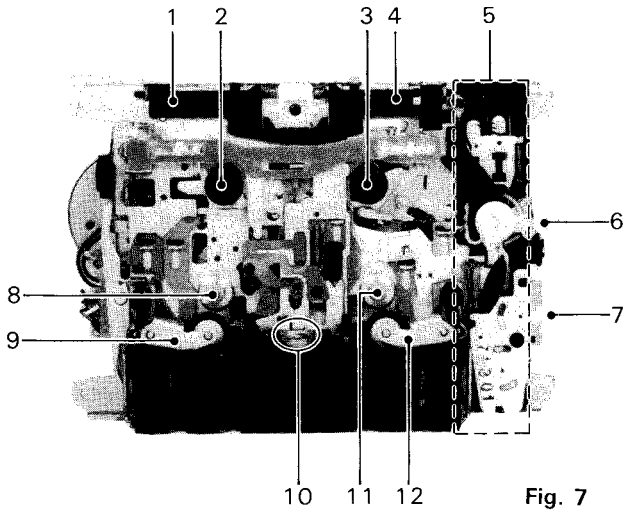


Fig. 7

1. Rec. safety lever (Left)
2. Reel feather (Left)
3. Reel feather (Right)
4. Rec. safety lever (Right)
5. Selector unit assembly
6. Mode select lever
7. Direction lever
8. Capstan shaft (Reverse)
9. Pinch roller arm assembly (Reverse)
10. Head mount base assembly
11. Capstan shaft (Forward)
12. Pinch roller arm assembly (Forward)

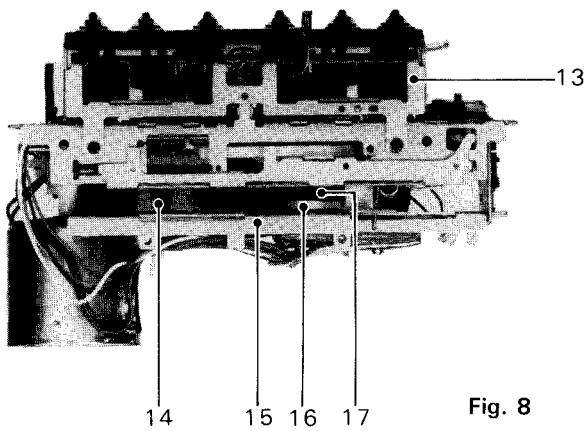


Fig. 8

13. Button frame assembly
14. Flywheel (Left)
15. FM bracket
16. Flywheel (Right)
17. Capstan belt

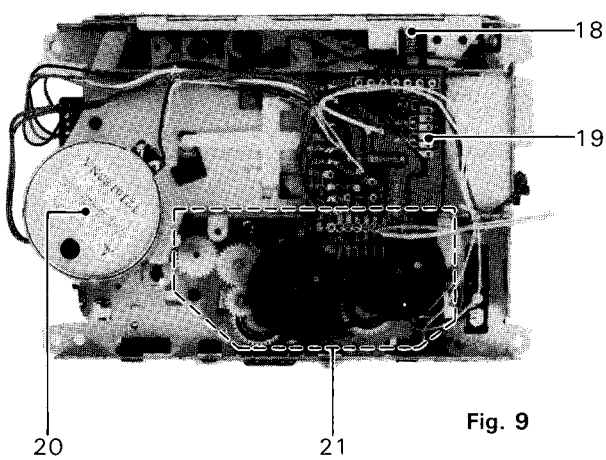


Fig. 9

18. Rec. spring
19. Hook-up board
20. DC motor
21. Reel assembly unit.

Operating principle of mechanical-logic auto-reverse mechanism is the same as these of the service manual KD-V33 A/B/C/E/E(D)/J/U (No. 4222B).

Removal of Main Parts

Receiver section

* Telescopic antenna replacement can be performed by removing the antenna screw in back.

1. Top cover Ass'y
   1) Remove the six screws (1) and (2) on both sides.
   2) Remove the five screws (3) and (4) from behind.
   3) Remove the antenna and power cord connector.

* Fuse replacement
  Remove the top cover for fuse replacement.

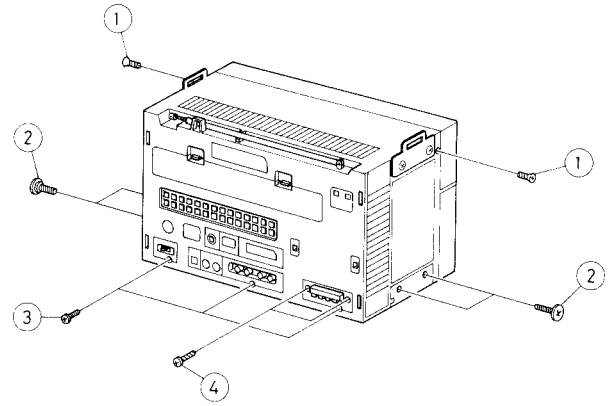
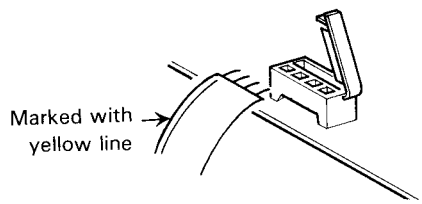
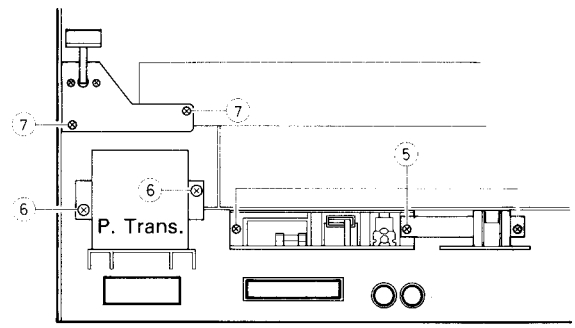


Fig. 10

2. Power board Ass'y and DIN Jack board Ass'y
   Remove the three screws (5).
3. Power transformer
   Remove the two screws (6).
4. Power switch Ass'y
   Remove the two screws (7).
5. Tuner Ass'y
   1) Remove the paralled wire of connector CN2.

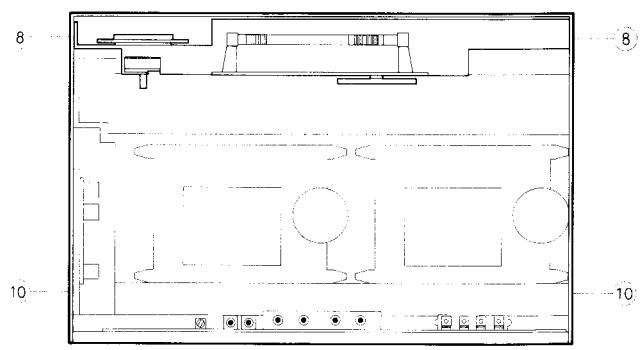




Front side view

Fig. 11

   2) Remove the two screws (8) holding the both side of the front panel. When removing others, also remove the two screws (10)



Rear side view

Fig. 12

6. LED & volume board Ass'y
   Remove the six screws (9) holding the board.

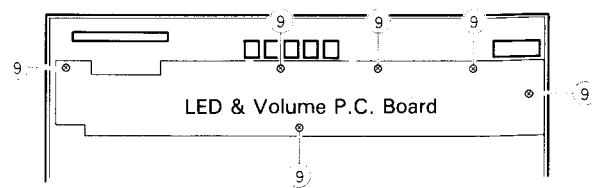


Fig. 13

7. Amplifier Ass'y and Mechanism Ass'y
   1) Pull off the mixing knob.
   2) Remove the six screws (13) holding the mechanism Ass'y to front cover.

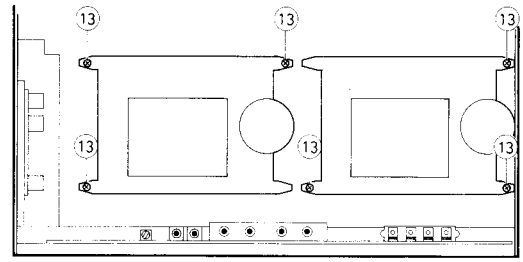


Fig. 14

   3) Remove the three screws (18) from the bottom.
   4) Hang the counter belt to the FM bracket.
   5) Open the door and pull out the mechanism Ass'y.

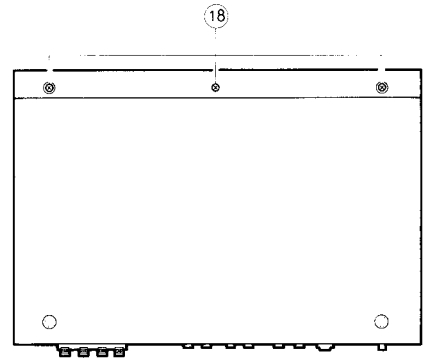


Fig. 15

8. Counter and switch board Ass'y.
   1) Remove the direction switch knob.
   2) Remove the screw (12) holding the bracket.

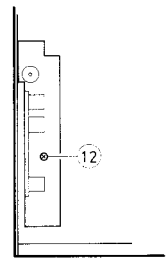


Fig. 16

9. Bottom cover
   Remove the six screws (11) and (15) holding the bottom cover and board.

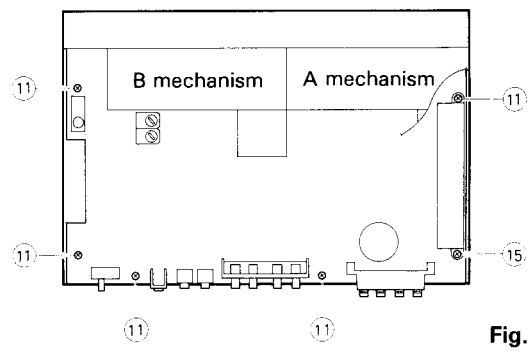


Fig. 17

10. Amplifier Board
    Remove the three screws (14) from the bottom of the amplifier board.

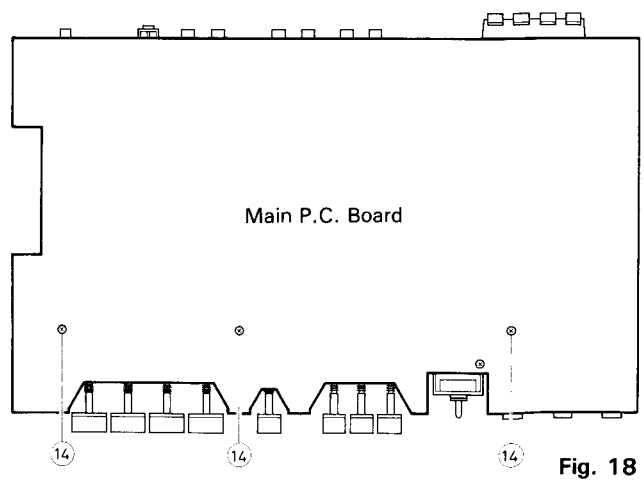


Fig. 18

11. A and B mechanisms
Remove the three screws (16) and (17) .

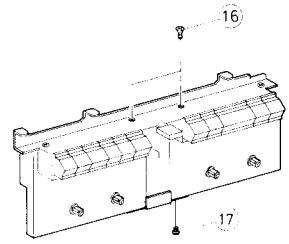


Fig. 19

Mechanism Parts

1. **Flywheel and belt**
   1) Remove two screws (B) fastening the F.R. bracket, and remove the main belt.
   2) Pull out the flywheel with the reel drive belt.

2. **Reel assembly unit**
   Remove 4 screws (A) fastening the reel ass'y unit.

3. **Motor**
   1) Remove two screws fastening the motor from the F.R. bracket.
   2) Pull out the motor pulley from the motor shaft.

4. **Reel feather**
   Pull out the reel feather from the shaft.

5. **Rec/PB head and Erase head**
   1) Remove two screws (C) fastening the button frame ass'y.
   2) Remove two screws (D) fastening the head ass'y with the head block.

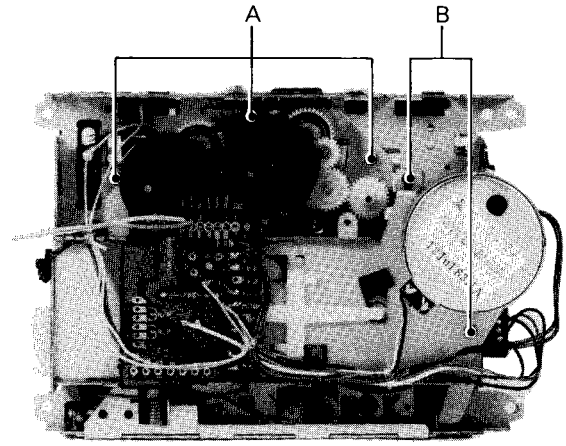


Fig. 20

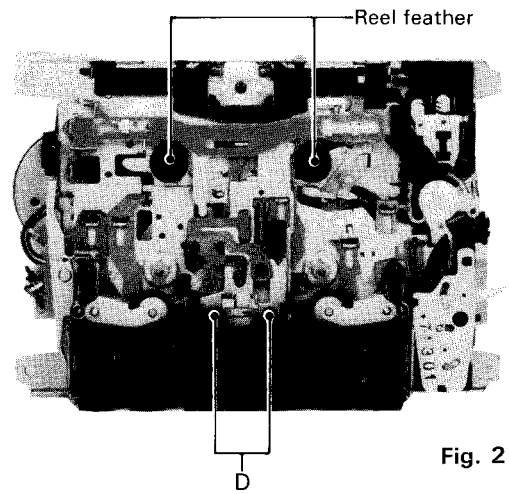


Fig. 21

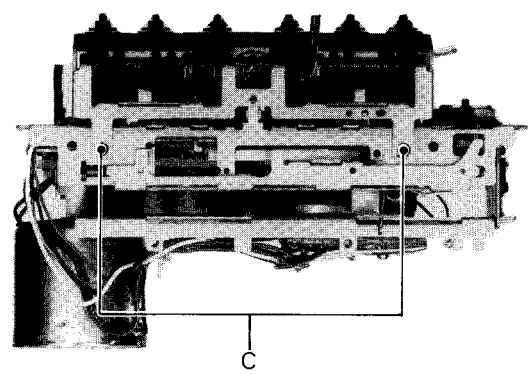


Fig. 22

Main Adjustments

[I] Equipment and measuring instruments used for adjustment

1. Electrical adjustment

1) Electronic voltmeter
2) Audio frequency oscillator
(range: 50—20 kHz and output 0 dB with impedance 600 Ω)
3) Attenuator
4) Standard tapes for REC/PB
Maxell UD — Normal tape (TS-5) or equivalent
5) Reference tapes for playback (JVC Test Tape)
TMT702 (for head azimuth adj.) (14 kHz)
VTT712 (for motor speed, wow flutter adj.)
VTT664 (for reference level 1 kHz)
VTT739 (for playback frequency response)
TMT6447 (for music scanning)
TMT6448 (for music scanning)
6) Resistors
600 Ω (for attenuator matching)

2. Mechanical adjustment

Torque testing cassette gauge

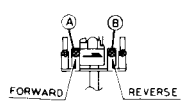
3. Tuner section adjustment

SSG (sweep signal generator)

[II] Mechanical adjustment

Adjustment procedure of cassette mechanism

(Adjust the mechanism or confirm that it is in normal operating condition prior to the adjustment of the electrical circuit.)

Item	Adjustment	Adjusting point	Standard value	Remarks
Motor speed adjustment	Connect the counter to LINE OUT and play back VTT712 (3000 Hz) and adjust to the semi-fixed VR of mechanism relay P.C.B.	Normal speed semi-fixed VR	A:3010 Hz B:3000 Hz	* Adjust the tape speed so that mechanism A is faster than B.
		High speed semi-fixed VR	A:6020 Hz B:6000 Hz	* When the semi-fixed VR adjustment is not possible, use the semi-fixed VR in the motor.
Wow & Flutter check	Wow and flutter shall be less than 0.16% (RMS) using VTT712.		0.16% (RMS)	
Checking playback torque	Employ a torque testing cassette tape CTG-N for the checking, or remove the cassette cover and use a torque gauge.		40—70 gr-cm	If the standard torque is not obtained, replace the take-up disc assembly.
Checking fast forward torque	Measure the torque in the fast forward mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, perform the following. 1. Clean the capstan belt, the idler circumference, the motor pulley, the take-up reel disc circumference, the flywheel circumference, etc. 2. Replace the belt and idler.
Checking rewind torque	Measure the torque in the rewind mode in the same manner as in the above.		More than 80 gr-cm	If the standard torque is not obtained, clean the capstan belt, idler, motor pulley, flywheel circumference, rewinding idler circumference, left reel disc circumference, etc.
Adjusting record/playback head position  Forward Reverse	1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the VTT702 test tape. 3. Adjust the head angle with the screw (A) or (B) until the reading of the electronic voltmeter becomes maximum for both directions. 4. After adjusting, set the screw with screw bond.	Screw (A) and (B)	Maximum	See Refer No. 12, 13 of page 13

Amp P.C. Board Top View

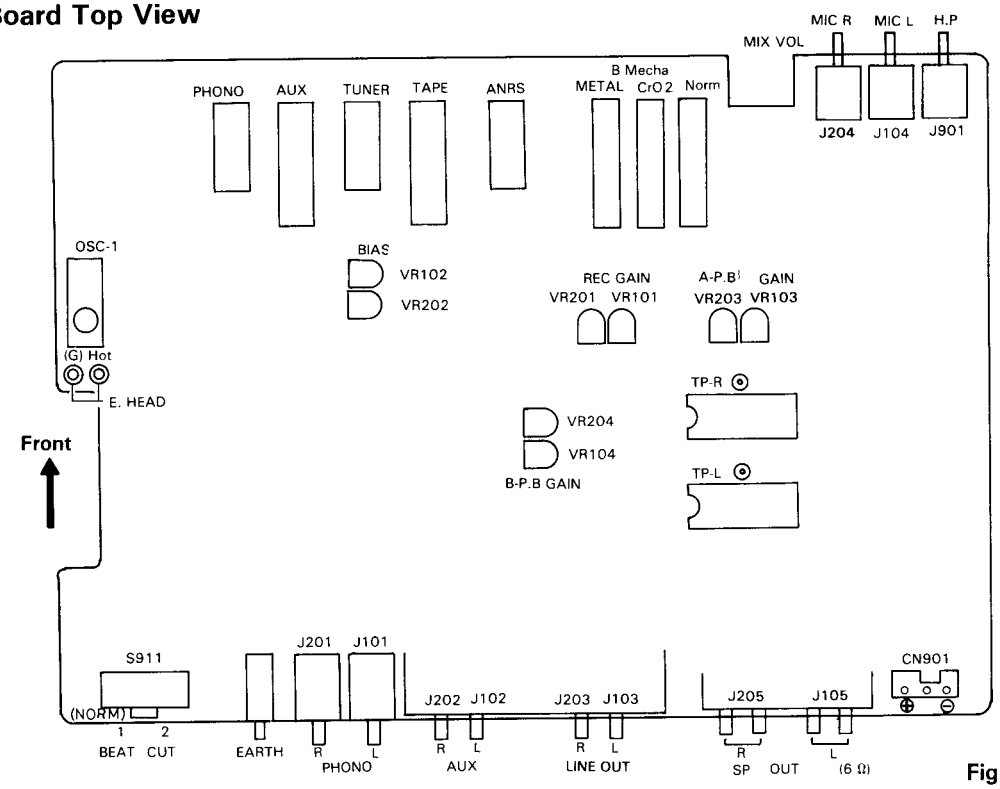
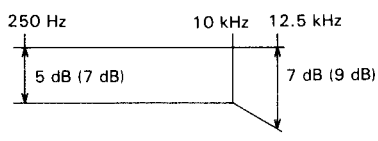


Fig. 23

Basic conditions

Power supply : DC 12V
Output measuring point : LINE OUT
Installation : Horizontal
(When not specified, this unit is set to LINE IN, ANRS OFF, MIC and VR MAX.)
(A ... Mechanism A, B ... Mechanism B)

	Item	Description
1.	PB level adjustment	DOLBY OFF Play back VTT664 (1 kHz) and adjust VR 103 and VR203 of mechanism A and VR104 and VR204 of mechanism B so that output level at TP-L and TP-R is −5.5 dBs. After adjustment, with tape switch selected to CrO_2, it shall be within 0 to ~2 dB in mechanism B. Mechanism A shall be checked by variations of noise. (Adj. after check = −7±2 dB/Line out)
2.	PB frequency response check	Play back VTT739 and check that deviation in output level of 10 kHz to 1 kHz within +0.5±2 dB.
3.	LED indicator check	In REC/PB mode, check that LED indicator "0 dB" lights with TEST POINT of within −5.5 dBs ±2 dB. (At L, R separate or simultaneous input).
4.	OSC frequency adjustment	Adjust OSC 1 so that bias leak at LINE OUT is minimized while balancing L and R. In this case, check that OSC frequency at erase head post pin is measured within 66 kHz ± 3 kHz.
5.	REC/PB frequency response adjustment (Mechanism B)	DOLBY OFF NORM: Record and play back 1.25 kHz and 12.5 kHz (reference level −20 dB) using MAXELL UD tape and adjust VR102 and VR202 so that difference in output level is +1 to ±0.5 dB at TP-L and TP-R. CrO_2: Check after NORM adjustment that difference in output level is within 12.5 kHz ±2 dB. METAL and CrO_2: When ANRS is set to ON, response with each tape shall be within the following values. ( ) indicates at REV. 

	Item	Description
6.	REC/PB sensitivity adjustment	Using MAXELL UD tape, record 1 kHz (reference level −20 dB) setting to LINE IN and NR OFF and adjust VR101 and VR201 so that playback output is at the same values at the recording at TP-L and TP-R.
7.	Bias leak	After each adjustment, bias leak shall be as follows in any mode. LINE OUT ..... less than −38 dBs LED indicator ..... not lit TP-L, TP-R (ANRS) ..... less than −45 dBs
8.	ANRS check	To cut bias current In REC mode, adjust INPUT level control so that output level at TP-L and TP-R is −2.5 dB with input of 1 kHz. In addition, turn down input level by 40 dB with ATT, and output level at TP shall be +5.7 ±2 dB with ANRS OFF →ON. Turn up input level by 20 dB with ATT changing input from 1 kHz to 5 kHz, and output level at TP shall be +3.5 dB ±2 dB with ANRS OFF → ON.
9.	REC MUTE check	Perform recording at an arbitary reference input level with REC MUTE SW kept ON, check that no input signal is recorded when playing it back. Also check that no appreciable noise occures when switching the REC MUTE button.
10.	MIC dummy check	In REC mode, check that no oscillation occurs with 10 kohm microphone dummy.
11.	Mixing check	Check that mixing level is adjusted by microphone VR. With mic connected .... Lch only — Monaural (localized at center) Rch only — Rch mixing Both channels — Stereo mixing
12.	Deck A/B azimuth difference check	Mechanism B: Record 10 kHz (reference level −20 dB) and make azimuth tape. The azimuth difference in mechanism A shall be within −4 dB.
13.	Deck A/B playback level difference check	Mechansim B: Record 1 kHz (reference level −20 dB) and the difference in playback level between mechanism B and A shall be within 3 dB.

Tuner Section

Parts Arrangement for Alignment

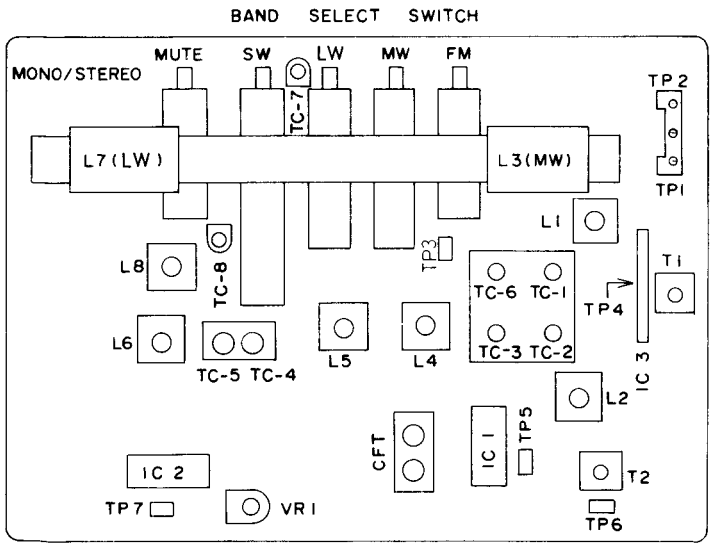
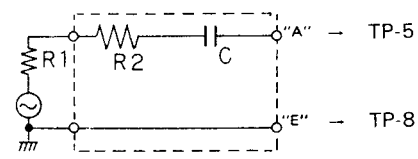


Fig. 24

Dummy Antenna



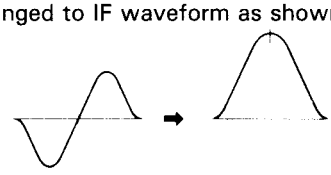
R1 + R2 = 80 Ω
C = 10 pF
R1: Output impedance of S.S.G.

Fig. 25

Tuner Alignment

BASIC CONDITIONS

POWER SOURCE OF THE RECEIVER	DC 12 V, AC240/220/110 V, 50/60 Hz
LOAD RESISTANCE OF THE RECEIVER	50 mW (0.55 V)/6 Ω
MODULATION OF SSG	400 Hz. 30%

Item	Description
1. AM IF ALIGNMENT	
1-1 Conditions of the receiver.	
(1) Power source:	DC 12 V (When the power is supplied directly to the tuner in the receiver, the voltage should be adjusted to the proper level which shall be required by the tuner.)
(2) Function switch position:	RADIO
(3) Band select switch:	MW
(4) Volume control:	Minimum gain position
(5) Tone control:	Center (Bass, Treble) position
(6) Variable capacitor:	Near the minimum capacity position where no signal come in.
1-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP3
(2) Tuner output:	Positive side to TP5 Negative side to TP6]
1-3 Aligning position:	CFT
1-4 Alignment (Waveform): 	Adjust AM I.F.T. (above mentioned aligning position) so that maximum and symmetrical wave form can be obtained. In this case, the wavehead should be appeared at the center marker (455 kHz) on the scope of Sweeper.
2. FM IF ALIGNMENT	
2-1 Conditions of the receiver	
(1) Power source:	Same as mentioned in item 1-1
(2) Function switch position:	RADIO
(3) Band select switch:	FM
(4) Volume control:	Minimum gain position
(5) Tone control:	Center (Bass, Treble) position
(6) Variable capacitor:	Near the minimum capacity position where no signal come in.
2-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP4
(2) Tuner output:	Positive side to TP5 Negative side to TP6
NOTE a) Attach a capacitor (30 pF) and a resistor (30 kΩ) to the positive side cable which shall be led from Sweeper input. b) Attach a resistor (100 kΩ) in series to the positive side cable which shall be led from Sweeper output.	
2-3 Aligning position:	a) IF Waveform: T1 b) Discriminate Waveform: T2 ("S" curve waveform)
2-4 Alignment (Waveform):	Adjust the discriminate coil (T2) so that "S" curve waveform may be changed to IF waveform as shown in following figure.  After above, adjust T1 so that max. sensitivity and symmetrical IF waveform can be obtained on the scope of Sweeper.
b) Discriminate Waveform:	Adjust the discriminate T2 again so that above symmetrical IF waveform may be changed to balanced "S" curve waveform.

Note

Coller of Celamic Filter	IF Frequency
Blue	10.67 MHz
Red	10.7 MHz
Orenge	10.73 MHz

Item	Description
3. AM RF ALIGNMENT	
3-1 Conditions of the receiver.	
(1) Power source:	Same as mentioned in item 1-1.
(2) Function switch position:	RADIO
(3) Volume control:	50 mW
(4) Tone control:	Center (Bass, Treble) position
(5) Variable capacitor:	Refer the following list shown in item 3-4.
3-2 Conditions of SSG.	
(1) Modulation:	Refer the basic condition
(2) Frequency:	Refer the following list shown in item 3-4.
(3) Output level of the attenuator in SSG:	Approx. 50 mW
3-3 Power output measuring position:	Speaker terminals
3-4 Alignment:	

	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	MW	Loop Antenna	520 kHz	Max. capacity	L4
2			1,650 kHz	Min. capacity	TC-3
3			Ajust the above aligning position (L4 & TC-3) repeatedly so that the tuner can be received above frequency range (band width).		
4			620 kHz	to be received 620 kHz	L3
5			1,400 kHz	to be received 1,400 kHz	TC-6
6			Adjust the above aligning position (L3 & TC-6) repeatedly so that the tuner can be obtained the best sensitivity.		
7	LW	Loop Antenna	145 kHz	Max. capacity	L5
8			360 kHz	Min. capacity	TC-4
9			Adjust the above aligning position (L5 & TC-4) repeatedly so that the tuner can be received above frequency range (band width)		
10			160 kHz	to be received 160 kHz	L7
11			350 kHz	to be received 350 kHz	TC-7
12			Adjust the above aligning position (L7 & TC-7) repeatedly so that the tuner can be obtained the best sensitivity.		
13	SW	Dummy Antenna	5.8 MHz	Max. capacity	L6
14			18.6 MHz	Min. capacity	TC-5
15			Adjust the above aligning position (L6 & TC-5) repeatedly so that the tuner can be received above frequency range (band width).		
16			6.0 MHz	to be received 6.0 MHz	L8
17			18.0 MHz	to be received 18.0 MHz	TC-8
18			Adjust the above aligning position (L8 & TC-8) repeatedly so that the tuner can be obtained the best sensitivity.		

Item	Description
4. FM RF ALIGNMENT	
4-1 Conditions of the receiver.	
(1) Power source:	Same as mentioned in item 1-1.
(2) Function switch position:	RADIO
(3) Band select switch:	FM
(4) Volume control:	50 mW
(5) Tone control:	Center (Bass, Treble) position
(6) Variable capacitor:	Refer the following list shown in item 4-3.
4-2 Condition of FM SSG.	
(1) Modulation:	Refer the basic condition
(2) Frequency:	Refer the following list shown in item 4-3.
(3) Output level of the attenuator in FM SSG:	The level shall be decided by the load resistance of the receiver mentioned in the basic conditions.
4-3 Alignment:	

	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Variable Capacitor Position	Aligning Position
1	FM	Dummy Antenna	87.5 MHz	Max. capacity	L2
2			109.0 MHz PC-W300L/LB 108.3 MHz PC-W300LD	Min. capacity	TC-2
3			Ajust the above aligning position (L2 & TC-2) repeatedly so that the tuner can be received above frequency range (band width).		
4			90 MHz	to be received 90 MHz	L1
5			106 MHz	to be received 106 MHz	TC-1
6			Adjust the above aligning position (L1 & TC-1) repeatedly so that the tuner can be obtained the best sensitivity.		

FM MPX Alignment

A. 19 kHz Alignment (Regular Method)
1. Connect a frequency counter to the test point TP7 (earth = TP6).
2. Supply the monaural signal (98 MHz, 60 dB) across the test points TP1 and TP2.
3. Adjust the variable resistor VR1 so that the frequency becomes 19 kHz ± 100 Hz.

B. 19 kHz Alignment (Simplified Method)
1. Tune to an FM stereo broadcast.
2. Set the variable resistor VR1 to the ST indicator ON.

How to Engage Dial Cord

1. Turn the dial drum fully clockwise (to the highest frequency).
2. Use kevlar cord (1120 mm long and 0.5 mm in diameter).
3. Install the string in the sequence of the numbers.

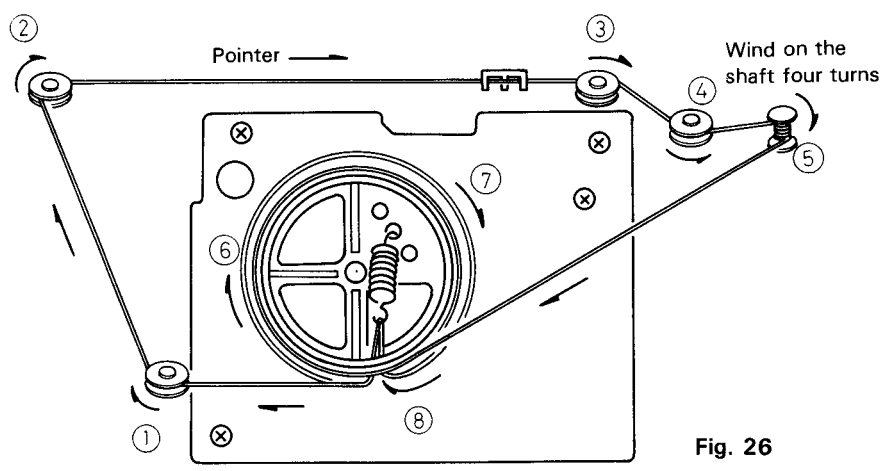


Fig. 26

Block Diagram

Tuner System

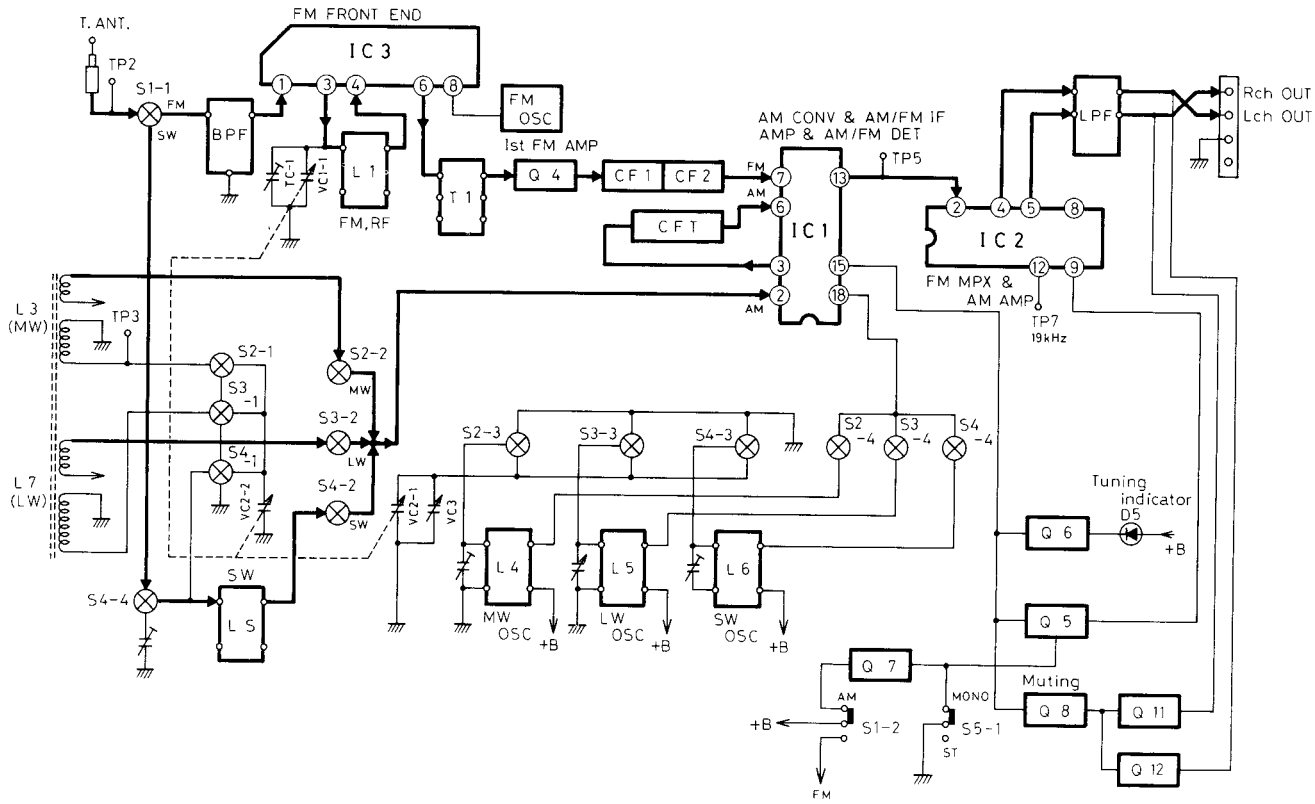


Fig. 27

Playback System

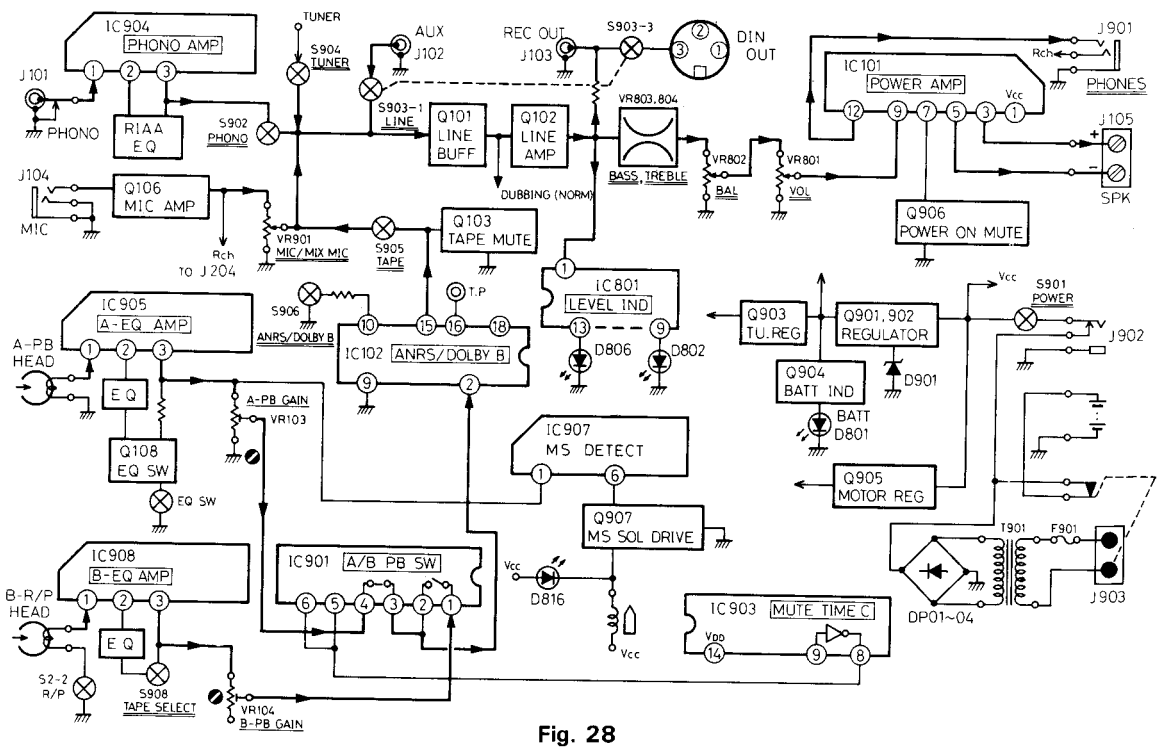


Fig. 28

Recording System

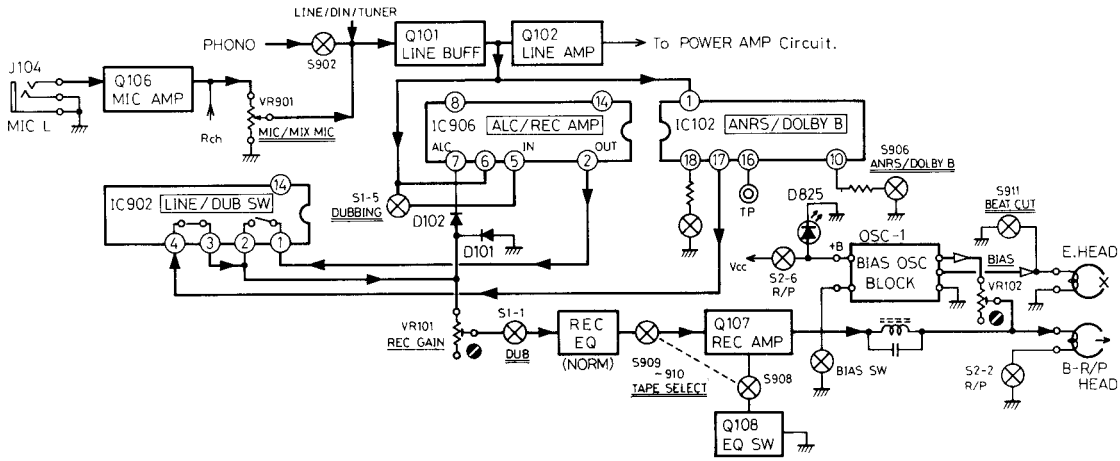


Fig. 29

Dubbing System

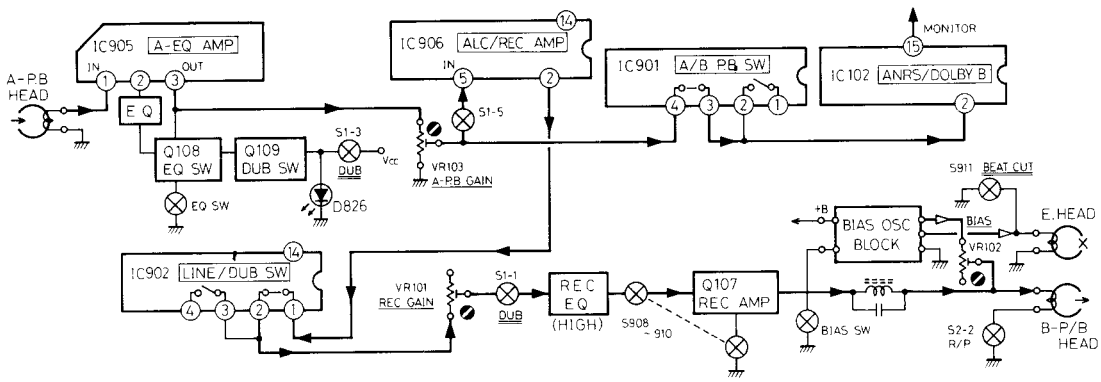
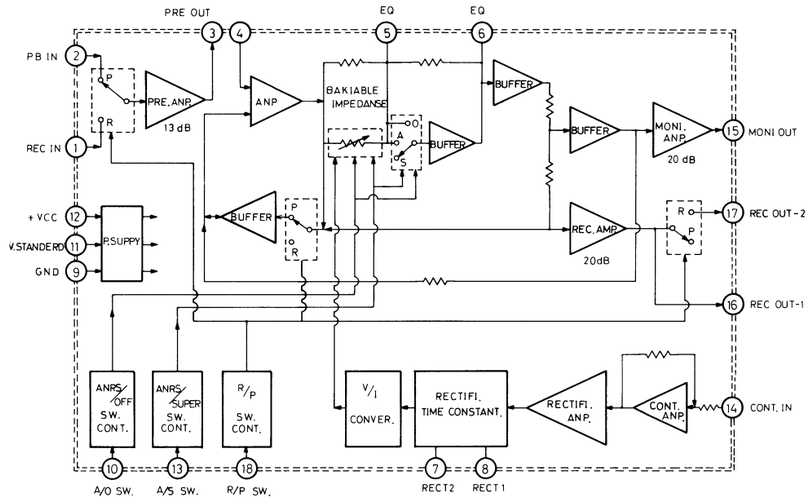


Fig. 30

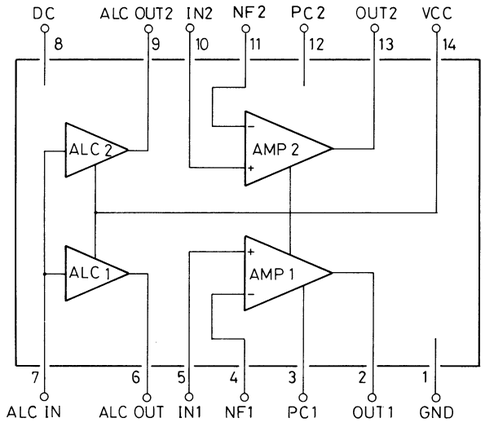
Integrated Circuit

Amp. Section

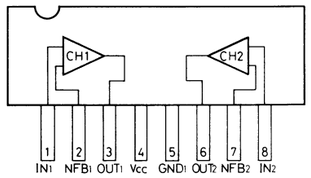
AN7363



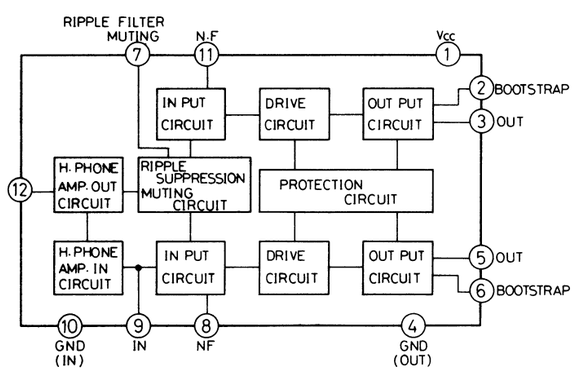
LA3220



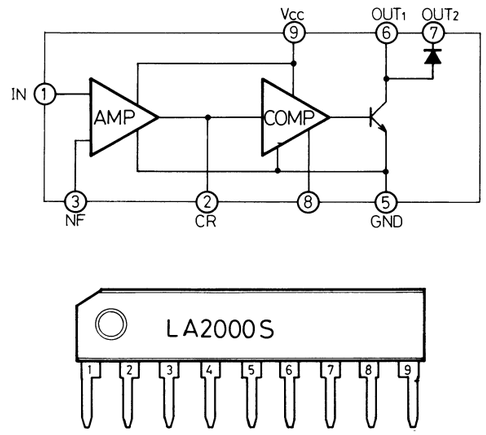
BA328



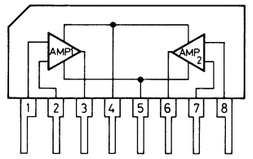
AN7161N



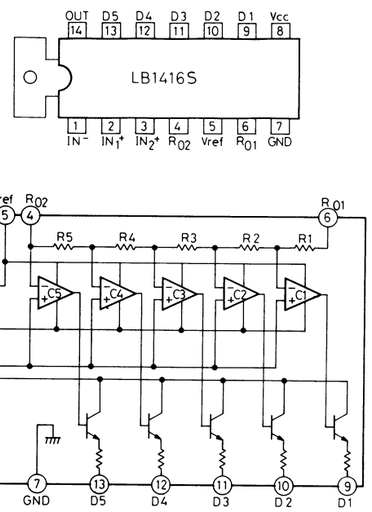
LA2000S



μPC1228H

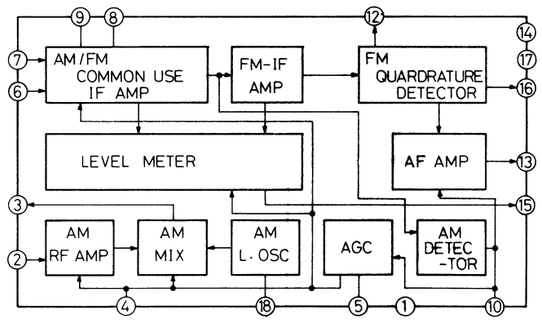


LB1416S

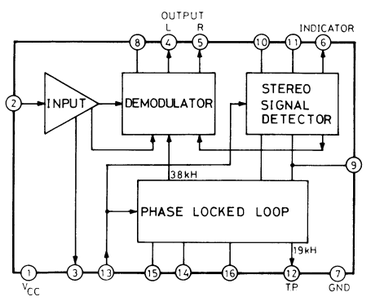


Tuner Section

AN7222N



AN7410



TA7358

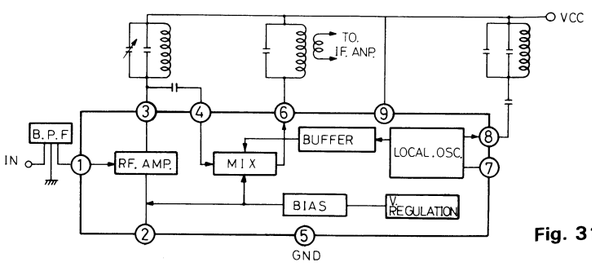
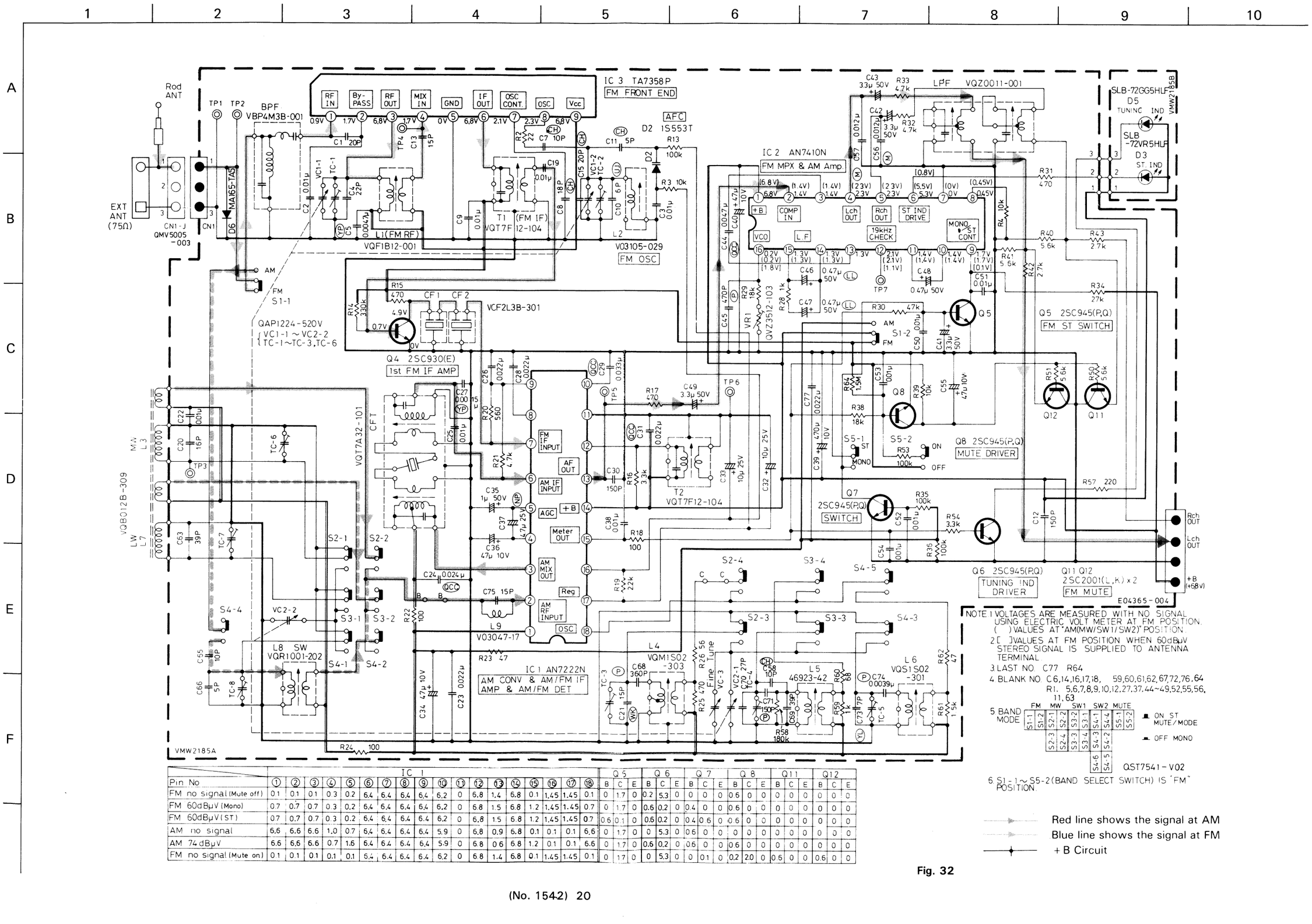


Fig. 31

Standard Schematic Diagram of PC-W300L/LB (Tuner Circuit)



NOTE 1 VOLTAGES ARE MEASURED WITH NO SIGNAL USING ELECTRIC VOLT METER AT FM POSITION. ( ) VALUES AT "AM(MW/SW1/SW2)" POSITION.

2 [ ] VALUES AT FM POSITION WHEN 60dBμV STEREO SIGNAL IS SUPPLIED TO ANTENNA TERMINAL

3 LAST NO C77 R64

4 BLANK NO C6,14,16,17,18, 59,60,61,62,67,72,76,64 R1, 5,6,7,8,9,10,12,27,37,44~49,52,55,56, 11,63

5 BAND MODE

	FM	MW	SW1	SW2	MUTE
S1-1					ON ST MUTE/MODE
S1-2					
S2-1					
S2-2					
S2-3					OFF MONO
S2-4					
S3-1					
S3-2					
S3-3					
S3-4					
S4-1					
S4-2					
S4-3					
S4-4					
S4-5					
S5-1					
S5-2					

QST7541-V02

6 S1-1 ~ S5-2 (BAND SELECT SWITCH) IS "FM" POSITION.

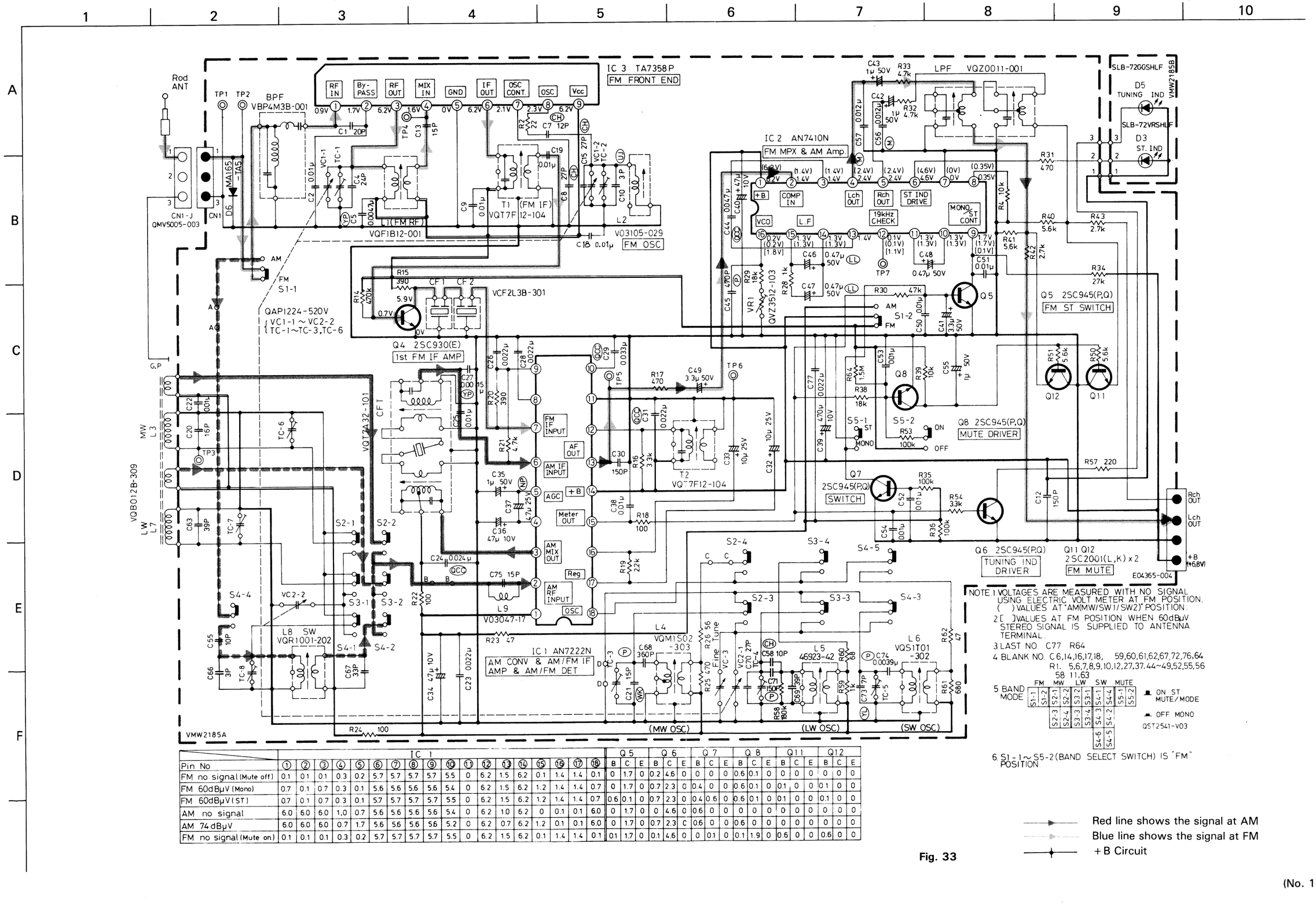
Pin No	IC 1 ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱
FM no signal (Mute off)	0.1	0.1	0.1	0.3	0.2	6.4	6.4	6.4	6.4	6.2	0	6.8	1.4	6.8	0.1	1.45	1.45	0.1
FM 60dBμV (Mono)	0.7	0.7	0.7	0.3	0.2	6.4	6.4	6.4	6.4	6.2	0	6.8	1.5	6.8	1.2	1.45	1.45	0.7
FM 60dBμV (ST)	0.7	0.7	0.7	0.3	0.2	6.4	6.4	6.4	6.4	6.2	0	6.8	1.5	6.8	1.2	1.45	1.45	0.7
AM no signal	6.6	6.6	6.6	1.0	0.7	6.4	6.4	6.4	6.4	5.9	0	6.8	0.9	6.8	0.1	0.1	0.1	6.6
AM 74dBμV	6.6	6.6	6.6	0.7	1.6	6.4	6.4	6.4	6.4	5.9	0	6.8	0.6	6.8	1.2	0.1	0.1	6.6
FM no signal (Mute on)	0.1	0.1	0.1	0.1	0.1	6.4	6.4	6.4	6.4	6.2	0	6.8	1.4	6.8	0.1	1.45	1.45	0.1

Pin No	Q5 B	C	E	Q6 B	C	E	Q7 B	C	E	Q8 B	C	E	Q11 B	C	E	Q12 B	C	E
FM no signal (Mute off)	0	1.7	0	0.2	5.3	0	0	0	0	0.6	0	0	0	0	0	0	0	0
FM 60dBμV (Mono)	0	1.7	0	0.6	0.2	0	0.4	0	0	0.6	0	0	0	0	0	0	0	0
FM 60dBμV (ST)	0.6	0.1	0	0.6	0.2	0	0.4	0.6	0	0.6	0	0	0	0	0	0	0	0
AM no signal	0	1.7	0	0	5.3	0	0.6	0	0	0	0	0	0	0	0	0	0	0
AM 74dBμV	0	1.7	0	0.6	0.2	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0
FM no signal (Mute on)	0	1.7	0	0	5.3	0	0	0.1	0	0.2	2.0	0	0.6	0	0	0.6	0	0

Red line shows the signal at AM
Blue line shows the signal at FM
+B Circuit

Fig. 32

Standard Schematic Diagram of PC-W300LD (Tuner Circuit)



Pin No	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱
FM no signal (Mute off)	0.1	0.1	0.1	0.3	0.2	5.7	5.7	5.7	5.7	5.5	0	6.2	1.5	6.2	0.1	1.4	1.4	0.1
FM 60dBμV (Mono)	0.7	0.1	0.7	0.3	0.1	5.6	5.6	5.6	5.6	5.4	0	6.2	1.5	6.2	1.2	1.4	1.4	0.7
FM 60dBμV (ST)	0.7	0.1	0.7	0.3	0.1	5.7	5.7	5.7	5.7	5.5	0	6.2	1.5	6.2	1.2	1.4	1.4	0.7
AM no signal	6.0	6.0	6.0	1.0	0.7	5.6	5.6	5.6	5.6	5.4	0	6.2	1.0	6.2	0	0.1	0.1	6.0
AM 74dBμV	6.0	6.0	6.0	0.7	1.7	5.6	5.6	5.6	5.6	5.2	0	6.2	0.7	6.2	1.2	0.1	0.1	6.0
FM no signal (Mute on)	0.1	0.1	0.1	0.3	0.2	5.7	5.7	5.7	5.7	5.5	0	6.2	1.5	6.2	0.1	1.4	1.4	0.1

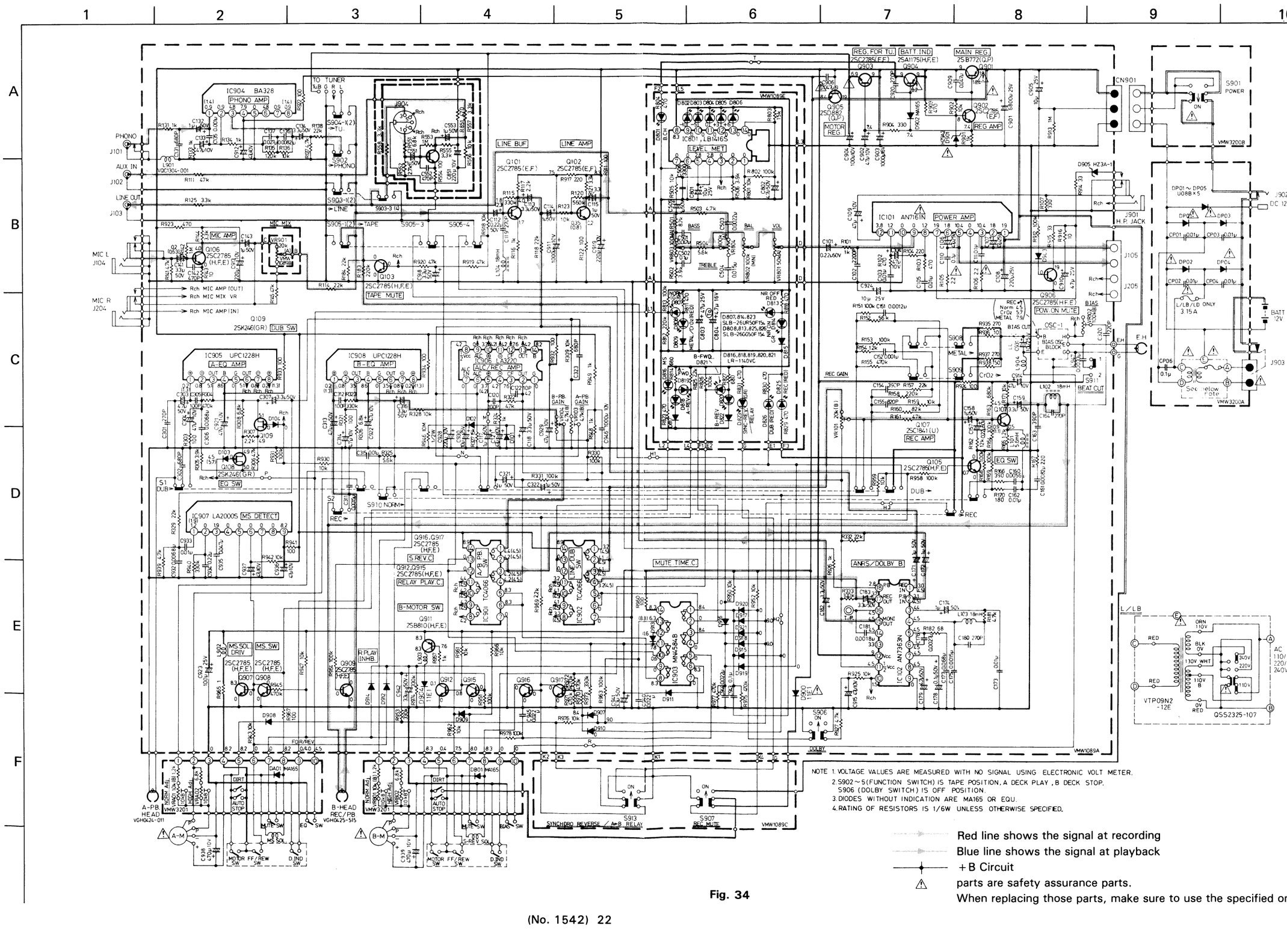
Pin No	Q5			Q6			Q7			Q8			Q11			Q12		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
FM no signal (Mute off)	0	1.7	0	0.2	4.6	0	0	0	0	0.6	0.1	0	0	0	0	0	0	0
FM 60dBμV (Mono)	0	1.7	0	0.7	2.3	0	0.4	0	0	0.6	0.1	0	0.1	0	0	0.1	0	0
FM 60dBμV (ST)	0.6	0.1	0	0.7	2.3	0	0.4	0.6	0	0.6	0.1	0	0.1	0	0	0.1	0	0
AM no signal	0	1.7	0	0	4.6	0	0.6	0	0	0	0	0	0	0	0	0	0	0
AM 74dBμV	0	1.7	0	0.7	2.3	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0
FM no signal (Mute on)	0.1	1.7	0	0.1	4.6	0	0	0.1	0	0.1	1.9	0	0.6	0	0	0.6	0	0

NOTE 1. VOLTAGES ARE MEASURED WITH NO SIGNAL USING ELECTRIC VOLT METER AT FM POSITION. ( ) VALUES AT "AM(MW/SW1/SW2)" POSITION.
2. [ ] VALUES AT FM POSITION WHEN 60dBμV STEREO SIGNAL IS SUPPLIED TO ANTENNA TERMINAL.
3. LAST NO. C77 R64
4. BLANK NO. C6,14,16,17,18, 59,60,61,62,67,72,76,64
R1, 5,6,7,8,9,10,12,27,37,44~49,52,55,56
58 11,63
5. BAND MODE: FM, MW, LW, SW, MUTE — S1-1 S1-2 S2-1 S2-2 S2-3 S2-4 S3-1 S3-2 S3-3 S3-4 S4-1 S4-2 S4-3 S4-4 S4-5 S4-6 S5-1 S5-2 — ON ST MUTE/MODE — OFF MONO — QST2541-V03
6. S1-1 ~ S5-2 (BAND SELECT SWITCH) IS "FM" POSITION

Red line shows the signal at AM
Blue line shows the signal at FM
+B Circuit

Fig. 33

Standard Schematic Diagram of PC-W300 (Amplifier Circuit)

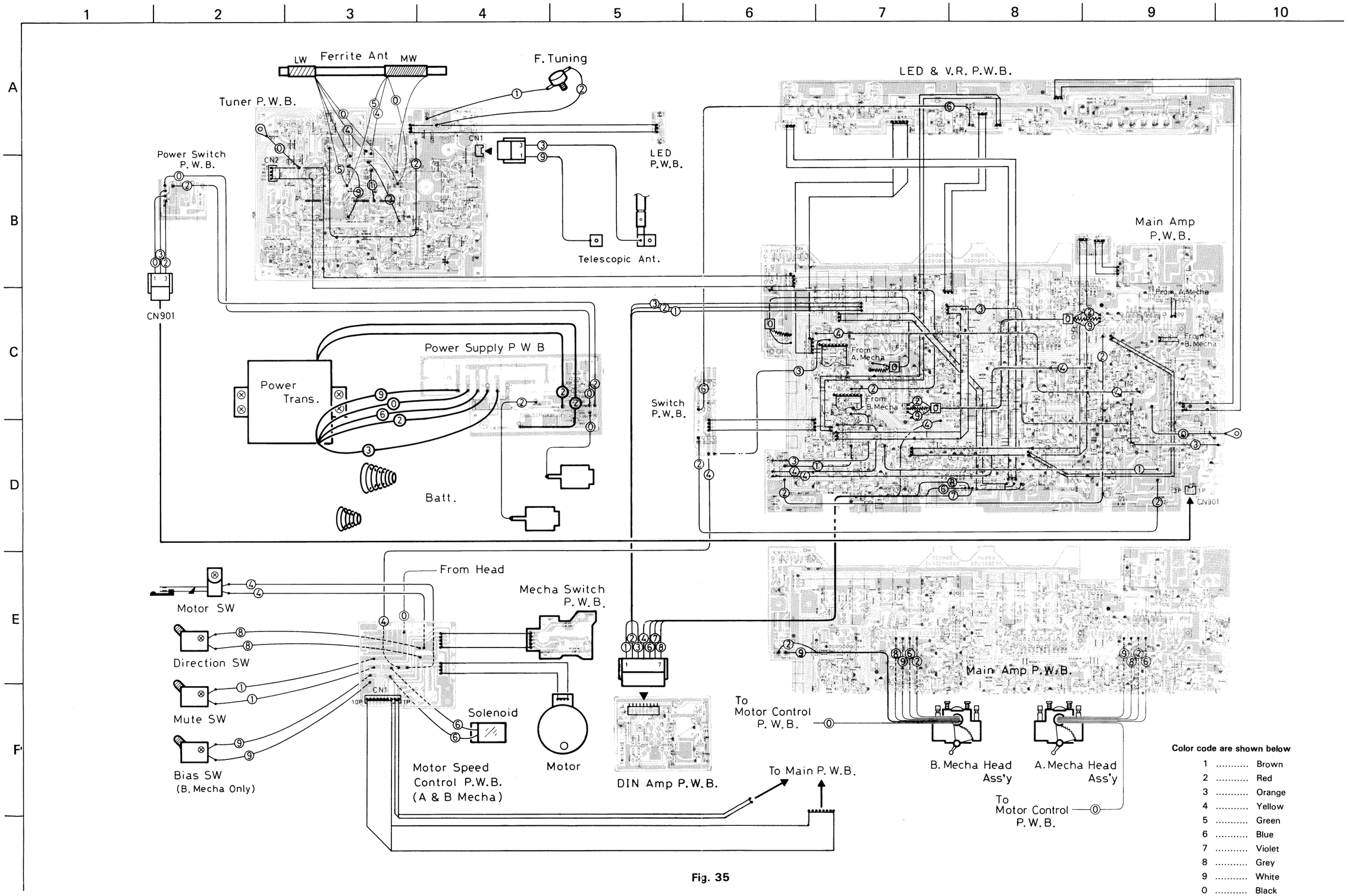


NOTE 1. VOLTAGE VALUES ARE MEASURED WITH NO SIGNAL USING ELECTRONIC VOLT METER.
2. S902~5(FUNCTION SWITCH) IS TAPE POSITION, A DECK PLAY, B DECK STOP.
S906 (DOLBY SWITCH) IS OFF POSITION.
3. DIODES WITHOUT INDICATION ARE MA165 OR EQU.
4. RATING OF RESISTORS IS 1/6W UNLESS OTHERWISE SPECIFIED.

Red line shows the signal at recording
Blue line shows the signal at playback
+B Circuit
⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

Fig. 34

Wiring Connections

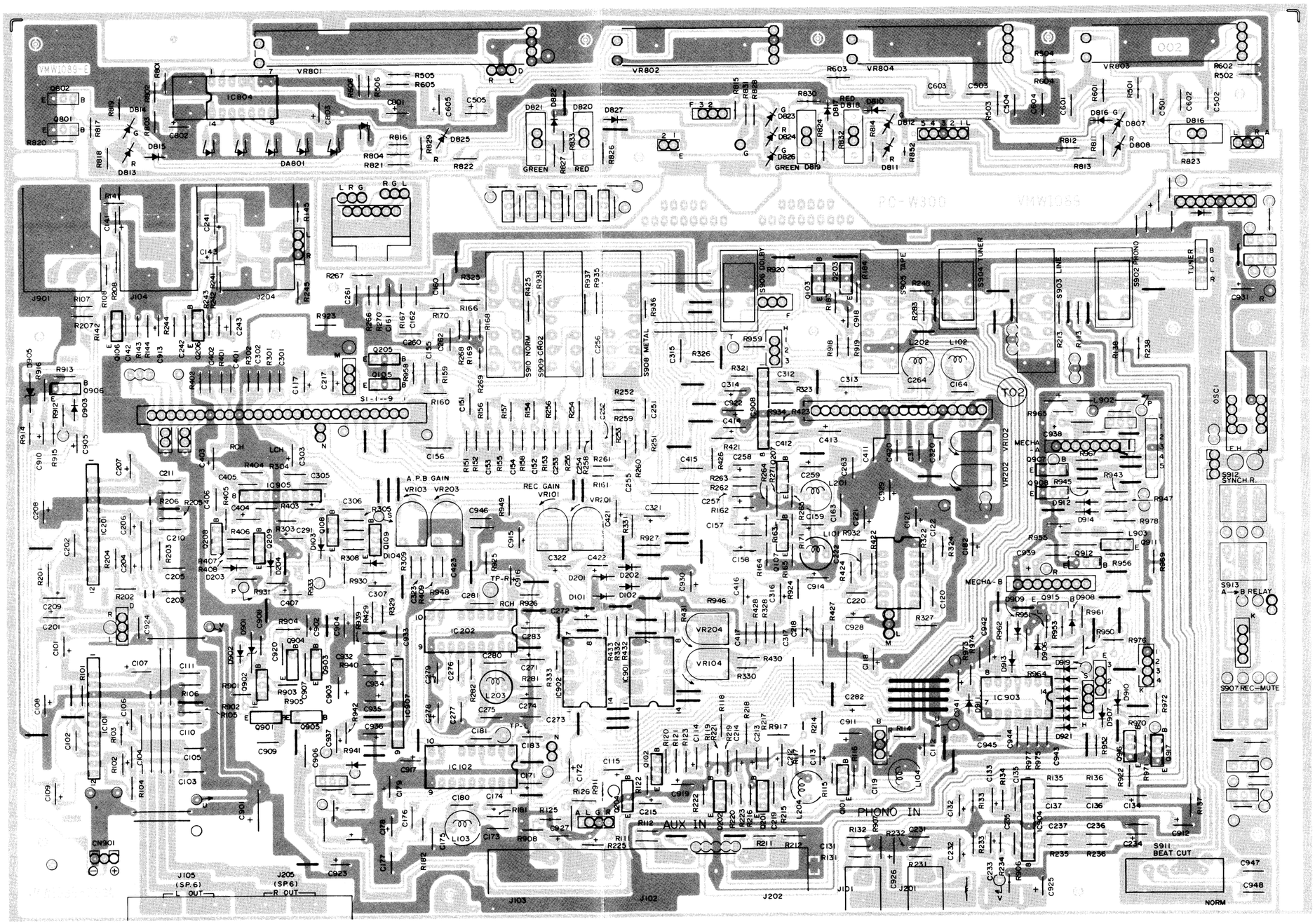


Color code are shown below

1	.....	Brown
2	.....	Red
3	.....	Orange
4	.....	Yellow
5	.....	Green
6	.....	Blue
7	.....	Violet
8	.....	Grey
9	.....	White
0	.....	Black

Fig. 35

P.C. Board Parts (Amplifier P.C. Board)



+B
Earth
IC & Transistor

Fig. 36

Amplifier P.C. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VMW1089-002	P.C. Board		1
⚠	IC101,201	AN7161N	I.C.		2
	IC102,202	AN7363N	〃		2
	IC904	BA328	〃		1
	IC907	LA2000S	〃		1
	IC906	LA3220	〃		1
	IC801	LB1416S	〃		1
	IC901,902	TC4066BP	〃		2
	IC903	TC4584BP	〃		1
	IC905,908	UPC1228H	〃		2
	IC903	UPD4584BC	〃		1
⚠	Q904	2SA1175(H,F,E)	Transistor		1
⚠	Q901	2SB772(Q,P)	〃		1
	Q911	2SB810(E,F)	〃		1
	Q107,207	2SC1841(U)	〃		2
	Q101~103 106,201,202 203,206,902	2SC2785(E,F)	〃		10
⚠	903				
	Q105,205 906~909,912 915,916,917	2SC2785(HFE)	〃		10
⚠	Q905	2SD882(Q,P)	〃		1
	Q108,109,208 209	2SK246(GR)	FET		4
	D905	HZ3A1	Zener Diode		1
⚠	D901	HZ9A2	〃		1
	DA801	LN061101P	L.E.D.		1
	D816,818 819~821	LR-1140VC	〃		5
	D101~104 201~204 809,815,817 822,902,903 907~921	MA165	Si. Diode		29
	D807,814,823	SLB-26GG50F154	L.E.D.		3
	D808,813,825 826	SLB-26UR50F154	〃		4
⚠	D900,904	10E1N-F	Si. Diode		2
	VR901	QVN3A6A-024M	V. Resistor		1
	VR101,201	QVZ1802-223	〃		2
	VR103,104,203 204	QVZ1802-472	〃		4
	VR102,202	QVZ3512-104	〃		2
	VR80	QVZ5203-007	〃		1
	VR802	QVZ5203-009	〃		1
	VR801	QVZ5503-002	〃		1
	S911	QSS1201-021	Slide Switch		1
	S902	QSS6201-204A	〃		1
	S903	QSS9201-005R	Slide Switch		1
	S906,913	QST7101-V01	Push Switch		1
	S907	QST7101-V02	〃		1
	S908,910	QST7341-V02	〃		2
	L902~904	T41572-001	Choke Coil		3
	L901	VQC1304-001	Coil		1
	L102~104 202~204	VQP0001-133S	Inductor		6

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	L101,201	VQP0001-562S	Inductor		2
	R606	QCY41HK-	C. Capacitor		1
	R946	QRD121J-	Carbon Resistor		1
	R938	QRD141J-	C resistor		1
⚠	R101~107	QRD161J-	Carbon Resistor	(R105,205, R106,206) only	241
	111,113 114~118 120~123 125,131 133~138				
	141~145 151~155 157~171 181~184 201~207				
	211,213 214~218 220~223 225,231 233~238				
	241~245 251~255 257~271 281~284 303~309				
	321~333 403~409 421~433 501~506 601~606				
	801~804 811~813 818,823 824~827 829~831				
	901~904 911~920 922~927 930~937 939~943				
	945,947 948~953 957~967 969~978 C906,909	QCC11EM-	C. Capcitor		2
	C177,277	QCC11EM-	〃		2
	C103,105,162 173,203,205 262,273,315 415,933	QCF11HP-	〃		11
	C940,944,945	QCF11HP-	〃		3
	C119,120,122 142,154,155 163,164,180	QCS11HJ-	〃		12

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	C219,220,222 242,254,255 263,264,280 301,305,312 320,401,405	QCS11HJ-	C Capacitor		18
	412,420,909 C102,131,135 152,175,176 181,202,231 235,252,275	QCY41HK-	〃		27
	276,281,302 311,323,402 411,423,503 506,603,932 947,948				
	C931 C101,112,157 178,201,212 257,278,934 C804	QEB41EM- QEB41HM- QEE81CM-	E Capacitor 〃 Tantal Cap		1 9 1
    ⚠	C104,204 C905 C106,107,206 207 C901	QEH51AM- QEH51HM- QEH61EM- QEL71EM-	E Capacitor 〃 〃 〃		2 1 4 1
	C946 C109,121,133 209,221,233 304,314,404 414,902,904	QET41AM- QET41AR-	〃 〃		1 24
	911~915 919,921,922 928,929,936 937 C903	 QET41CR-	 〃		 1
⚠	C108,208 C801,803 910,923,924 930 C113~115	QET41EM- QET41ER- QET41HR-	〃 〃 〃		2 6 50
	117,118,132 134,141,143 158,159,171 172,174,179 182,183				
	213~215 217,218,232 234,241,243 258,259,271 272,274,279				
	282,283,303 307,313,316 321,322,403 407,413,416 421,422,505 605,802,916				

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	C918,941,942	QFN41HR-	E Capacitor		3
	C136,137,151	QFN41HJ-	M Capacitor		12
	160,161,236				
	237,251,260				
	261,306,406				
	C110,111,210	QFV41HJ-	F Capacitor		12
	211,501,502				
	504,601,602				
	604,935,943				
	J104,204,901	QMS6317-002	Headphone Jack		3
	J201	VMC0002-001	Jack		1
	J101	VMC0002-002	〃		1
	J105,205	VMJ4014-001	SPK Terminal		1
	S902～905	QST7461-V02	Push Switch		1
	J102,103,202	VMJ3004-002	Jack Ass'y	Line IN/Out	1
	203				
		VMZ0001-001	Earth Terminal	Phone Amp	1
	OSC-1	VGC0007-002	OSC. Block		1

Tuner P.C. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	IC01	AN7222N	I.C.		1
	IC02	AN7410N	〃		1
	IC03	TA7358P	〃		1
	Q11,12	2SC2001 (L,K)	Transistor		2
	Q04	2SC930 (E)	〃		1
	Q05~08	2SC945 (P,Q)	〃		4
	D06	MA165	Si. Diode		1
	D05	SLB-72GG5HLF	L.E.D.		1
	D03	SLB-72VR5HLF	〃		1
	D2	IS553T	Vari. Capa. Diode		1
	VR01	QVZ3512-103	V. Resistor		1
	CN02	E04365-004	Plug		1
	CN01	QMV5005-003	〃		1
	L03L	VQB012B-309	Bar Antenna		1
	L01	VQF1B12-001	RF Coil		1
	L04	VQM1S02-303	OSC Coil		1
	L08	VQR1001-202	Antenna Coil		1
	L06	VQS1S02-301	OSC Coil		1
	LF01	VQZ0011-001	Low Pass Filter		1
	L09	V03047-17	Coil		1
	L02	V03105-029	OSC Coil		1
	L05	46923-42	〃		1
	R64	QRD141J-	C Resistor		1
	R02~04 13~26	QRD161J-	Carbon Resistor		42
	28~36 38~43 50,51,53,54 57~62 C24,31	QCC11EM-223	C Capacitor		2
	C29	QCC11EM-333	〃		1
	C44	QCC11EM-473	〃		1
	C02,03,09,18 19,22,25,38 50~54	QCF11HP-103	〃		13
	C23,26,28,77	QCF11HP-223	〃		4
	C01,04,12,13 20,30,63,65 66,69,70,75	QCS11HJ-	〃		12
	C07,08,11,15 72	QCT05CH-	〃		5
	C10	QCT05UJ-	〃		1
	C21	QCT05WK-	〃		1
	C73	QCT05YL-	〃		1
	C05,27	QCY41HK-	〃		2
	C46,47	QEB41HM-	E Capacitor		2
	C37	QEN41EM-	〃		1
	C34,36,39,40 55	QET41AR-	〃		5
	C32,33	QET41ER-	〃		2
	C35,41,42,43 48,49	QET41HR-	〃		6
	C56,57	QFN41HJ-	M Capacitor		2
	C71	QFS21HJ-151	P.S. Capacitor		1
	C68	QFS21HJ-361	〃		1
	C74	QFS21HJ-392	〃		1

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	C45	QFS21HJ-471	P.S. Capacitor		1
	CF01,02	VCF2L3B-301	CER. Filter		2
	CT01	VQT7A32-101	I.F. Transformer		1
	TC07,08	QAT2001-006	T. Capacitor		2
	TC04,05	QAT2002-001	〃		1
	T01T	VQT7F12-104	I.F. Transformer		2
	VC01	QAP1224-520V	V Capacitor		1
	VC03	QAT5001-003	M. Capacitor		1
	BF01	VBP4M3B-001	B. Pass Filter		1
		QST7541-V02	Push Switch	Band Switch	1

DIN P.C. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

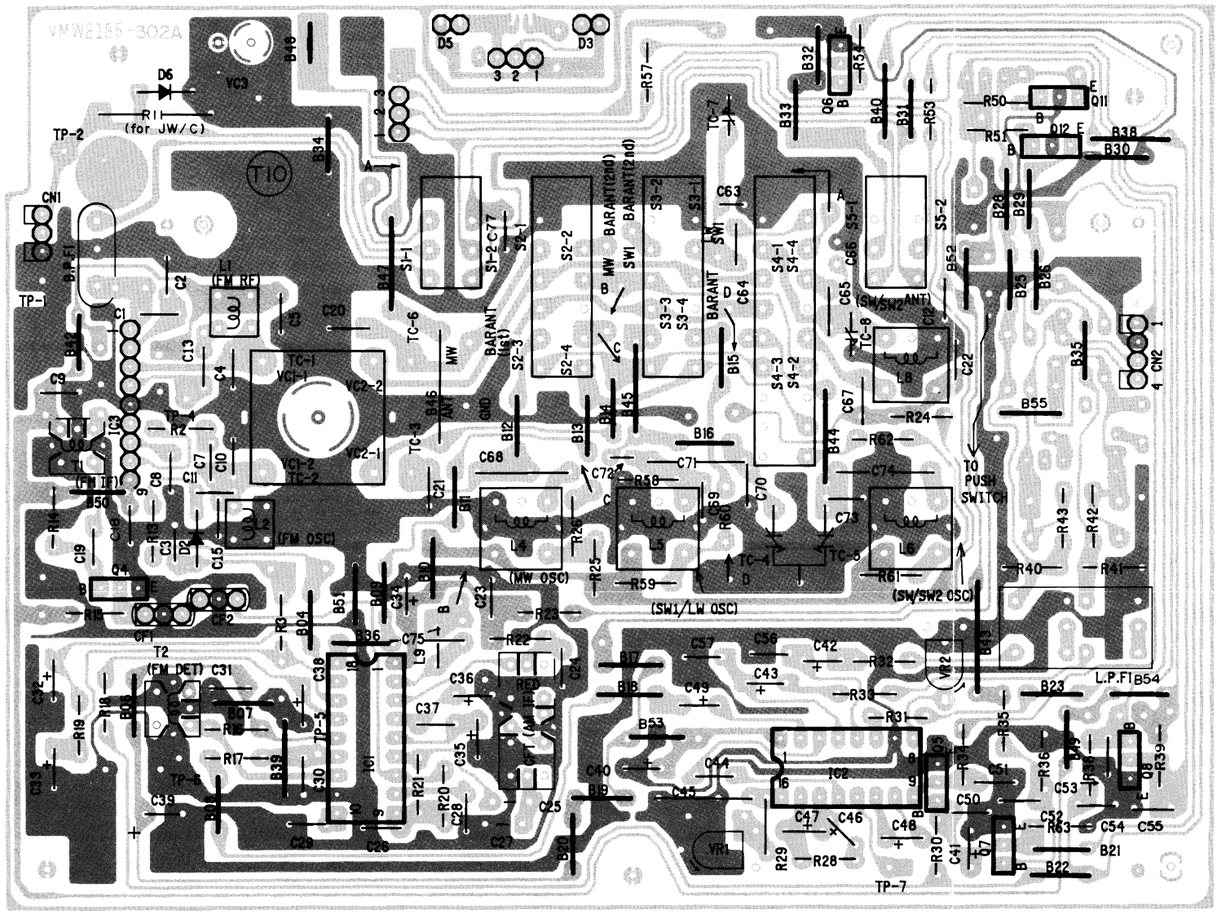
⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VMW3215-001	P.C. Board		1
	Q551,651	2SC1843 (F)	Transistor		2
	CN851	QMV5004-007	Connector		1
	S912	QSP2210-061	Push Switch		1
	R551～558 651～658,851	QRD141J-	C Resistor		17
	C552,652	QCS11HJ-	C. Capacitor		2
	C851	QET41AR-	E Capacitor		1
	C551,553 651,653	QET41HR-	〃		4
	J904	QMC9014-006	DIN Socket		1

Power Supply P.C. Board Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

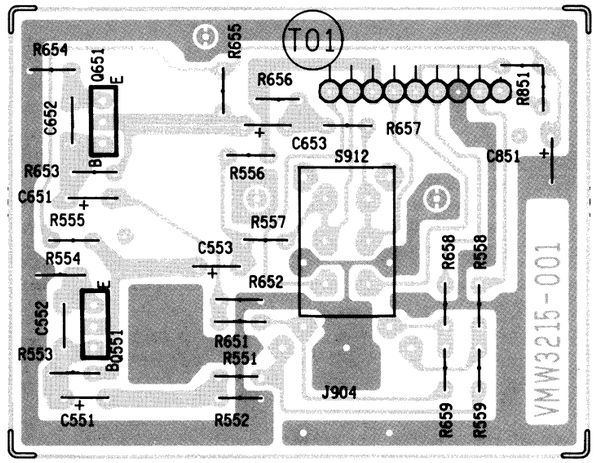
⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VMW3200-102	P.W. Board		1
⚠	DP01～05	U08B-F	Si. Diode		5
	CP01～04	QCF11HP-103	C. Capacitor		4
	CP06	QCF11HP-104	〃		1
		QMA1221-004	EXT. Batt. Jack		1
⚠		QMC0263-002U	AC Socket		1
⚠		QSS2325-107	Slide Switch	240 V/220 V/110 V	1
		A44594-002	Fuse Clip		2
⚠		QMF51A2-2R15	Fuse	T3.15A	1
⚠		QMF51A2-3R15BS	〃	T3.15A (LB Version)	1
		VND4003-053	Fuse Lavel		1
⚠		QSP0210-016	Power Switch		1
		QMV5005-003	Connector		1

P.C. Board Parts of Tuner/Power/DIN



Tuner P.C. Board

DIN P.C. Board



+B
Earth
IC & Transistor

Power Supply P.C. Board

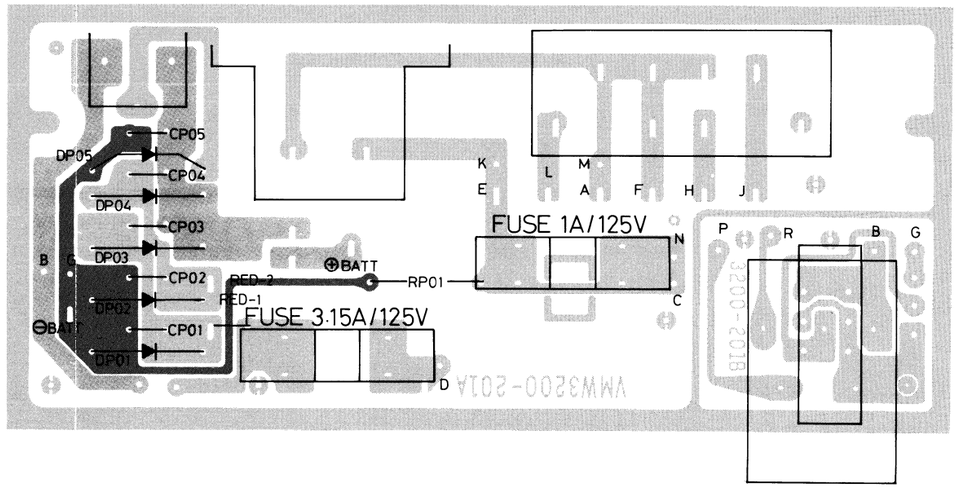


Fig. 37

Enclosure Assembly Parts and Electrical Parts

Belonging Nut

Volume

Fig. 38

Enclosure Assembly Parts and Electrical Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1 ~ 6	ZCPWR300Y-FS	Front Cabinet Ass'y		
	1	VJC1313-004	Front Cover	PC-WR300L/LB	1
	〃	VJC1313-007	〃	PC-WR300LD	
	2	VJD4005-002	Plate		2
	3	VJK3220-003	Dial Lens		1
	4	VJK3221-001	LED Lens		1
	5	VJK3222-001	Volume Lens		1
	6	VJD3442-001	Control Plate		1
	7	VJT2090-001	Holder		2
	8	VKY4180-001	Spring		4
	9	VYH5448-001	Door Bracket		1
	10	VYH5449-001	〃		1
	11	VYH5451-001	〃		1
	12	SBSF2610Z	Screw	Door Bracket	4
	13	VYH5450-002	Spring	B Mecha.	1
	14	VYH5133-001	Gear		2
	15	VYH5134-001	Holder		2
	16	SBSF2610Z	Screw	D. Holder	4
	17	VJD3443-001	Blind		1
	18	SPSP2003Z	Screw	Volume Blind	5
	19	SDSF2608Z	〃	LED & Volume P.W.B.	6
	20	VXS4120-001	Slide Knob		3
	21	VXS4121-001	〃		1
	22	VYH5447-002	Counter Bracket		1
	23	VKC5172-001T	Counter		1
	24	VKH3008-003	Flange Shaft		1
	25	VXQ3039-001	Toggle Lever		1
	26	REE2500	E. Ring		1
	27	VXP4374-001	Push Knob	S. Dubbing/C. Play	1
	28	VXP4373-001	〃	Rec. Mute	1
	29	LPSP3006Z	Screw	Counter Bracket	3
	30	SBSF3008Z	T. Screw	〃	2
	31	———	PC-W300 Mecha	A Mecha.	1
	32	———	〃	B Mecha.	1
	33	VKB3000-071	Belt	Counter	1
	34	VYH5454-001	Joint Bracket		1
	35	SDST2004Z	Screw	Joint Bracket	2
	36	VYH5434-001	Reverse Bracket		1
	37	VKH3008-003	Flange Shaft		1
	38	VXQ3039-001	Toggle Lever		1
	39	REE2500	E. Ring		1
	40	SDST2004Z	Screw	Reverse Bracket	2
	41	VYH5435-001	Direction Lever		2
	42	VYH5418-001	Slider		2
	43	VKZ4028-001	Collar Screw	Direction Lever	6
	45	VXQ4062-001	Cap		2
	46	VKW3002-043	T. Spring		1
	47	VYH3248-00C	Bracket Ass'y	Mecha.	1
	55	SSST3006Z	Screw	BKT Ass'y-A/B Mecha.	4
	56	SDST3008Z	〃	BKT Ass'y-M. Amp P.W.	3
	57	VKY5508-002	Spring		2
	58	SSST2604Z	Screw	Rec. Spring	4
	59	VSH1132-001	Leaf Switch	A Mecha.	1
	60	VYH5519-001	Bracket	Leaf Switch	1
	61	SDST2008Z	Screw	〃	1
	62	LPSP2004Z	〃	-A Mecha-Leaf Switch	1
	63	VJC2131-001	Bottom Cover		1
	64	VJF4007-002	Foot		2
	65	———	Amp P.C.B. Ass'y		1

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	66	VYH5531-001	Shield		1
	68	VYH3251-001	Radiation Plate	Main Amp.	1
	69	SDST2608Z	Screw	Radiation (TR)	2
	70	SBSF2610Z	〃	〃 (POWER IC)	4
	71	VXP4375-001	Push Knob	NR×1, T. Select ×3	4
	72	VXP4376-001	〃	Function	4
	73	VXP4377-001	〃	Synchro Start	1
	74	VXL4136-002	Mixing Knob		1
	75	VXP3105-001	Play Button (B)		1
	76	〃 -002	Stop Eject Button		2
	77	〃 -003	Rew Button		2
	78	〃 -004	FF Button		2
	79	〃 -005	Pause Button		2
	80	〃 -006	Rec. Button		1
	81	〃 -008	Play Button (A)		1
	82	VYH5438-001	Bracket	Mix. VR.	1
	83	LPSP3006Z	Screw	Mix. VR. Bracket	2
	84	VYH5530-002	Spring		1
	85	———	MIX VR. P.C.B.		1
	86	VYH1135-001	Chassis	Tuner	1
	87	VYH5436-00A	Roller Bracket Ass'y		1
	88	VYH5442-00B	Bracket		1
	89	VYH5444-00A	Roller Bracket Ass'y		1
	90	SBSF3008Z	T. Screw	Roller/Plate	4
	91	LPSP3006Z	Screw	Roller E	1
	92	VYH5446-001	Plate	Both Side of Chassis	2
	93	VYH5524-003	Tuning Shaft		1
	94	REE6000	E Ring		1
	95	VXL4189-001	Tuning Knob		1
	96	VKZ4019-001	Special Nut	Tuning Knob	1
	97	SBSF3010C	T Screw	Tuner P.W.B.	2
	98	VYH3202-001	Dial Drum		1
	99	SSSP2608Z	Screw	D. Drum	1
	100	VHR2ZK9-05AT	Dial Cord	1400 mm	1
	101	50153-3	Spring	D. Cord	1
	102	VJN4072-001	Pointer		1
	103	VKZ4019-001	Special Nut	Mixing Volume	1
	104	SBSF3010C	T Screw	Mecha.	7
	105	SDST3008C	Screw	Main Amp. P.W.B.	5
	106	SHST3006N	〃	Front Cover (Lower)	2
	〃	SHST3006N	〃	〃	1
	107	SHST3006N	〃	〃 (Upper)	2
	108	VYH4803-001	Bar Antenna Holder		2
	109	SBSF3008Z	T. Screw	Bar Antenna Holder	2
	110	VYH5533-002	Pulley		1
	111	LPSP3008Z	Screw		2
	112	VXP4371-001	Power knob		1
	114	VJC1314-004	Top Cover		1
	115	ZCPCWR300Y-BS	Battery Cover		1
	118	VYH5070-003	Plate	T. Antenna PC-W300L/LB	1
	119	V44814-00B	Terminal	〃 〃	2
	120	VJA3005-001	Telescopic Antenna		1
	121	SDSP3010N	Screw	T. Antenna	1
	122	VYH5428-001	Tapping Plate		2
	123	VYH5429-001	AC Bracket		1
	124	SDST3006Z	Screw	AC Socket/P.C.B.	4
	125	SBSF3008Z	T. Screw	Top Cover-AC Bracket	3
	126	SBSF4025Z	〃	Power Trans	2
	127	VKZ4001-010	Wire Holder		1
	128	VYH4057-001	Battery Spring		1
	129	V44686-002	Spring		1

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	130	VYH4044-001	Battery Contact		2
	131	VYN7014-006	Name Plate	PC-WR300L	1
	〃	〃 -007	〃	PC-WR300LB	1
	〃	〃 -009	〃	PC-WR300LD	1
	132	SHST3006N	Screw	Top Cover (Upper)	2
	133	SDST3008N	〃	Top Cover	3
	〃	SDST3008N	〃		2
	134	SDSF3010N	〃	Speaker Terminal	2
	135	VYH3263-001	Lever	Power Switch	1
	136	VYH5439-001	Plate	〃	1
	137	LPSP3004Z	Screw	〃	2
	138	SBSF3010Z	〃	Plate-Top Cover	2
	139,141	ZCPCWR300Y-CCA-A	Cassette Door		1
	142				
	139	VJT3124-001	〃	A. Mecha	1
	140~142	ZCPCWR300Y-CCA-B	〃		1
	140	VJT3124-002	〃	B. Mecha	1
	141	VJD3444-001	Escutcheon		2
	142	VJD4756-002	Mark Plate		2
⚠	143	VTP09N2-12E	Power Transformer	PC-WR300L/LD TP01	1
⚠	〃	VTP09N2-12EBS	〃	PC-WR300LB 〃	1
	144	———	Power P.C.B. Ass'y		1
	145	———	VR P.C.B. Ass'y		1
	146	———	Tuner P.C.B. Ass'y		1
	147	———	LED P.C.B. Ass'y		1
	149	———	Power Switch P.C.B.		1
	150	VJD4760-001	Frame		2
	151	VKZ4172-001	Special Screw		4
	〃	〃 -001	〃		4
	152	Q03095-206	Washer	Roller E	1
	155	VXP4372-001	Push Knob	FM	1
	156	〃 -007	〃	MW	1
	157	〃 -003	〃	Mode	1
	158	〃 -006	〃	LW	1
	159	〃 -008	〃	SW	1
	160	VXL4187-002	Knob	Fine	1
	161	SSSP2004Z	Screw	〃	1
	163	VYH5517-001	F. Tun. Bracket	Fine	1
	164	Q03091-206	Washer		2
	165	50242-3	Lug Terminal	Door Bracket	1
	166	VYSA1R4-050	Spacer		1
	167	VYSA1R3-026	〃		1
	168	VYSA1R4-050	〃		6
	169	VYSA1R4-030	〃		3
	171	VYSA1R4-067	〃		1
	172	VYSH103-041	〃	Top Cover	4
	173	VYSA1R4-030	〃		2
	175	VYH3277-001	Shield		1
	176	SDST3008Z	Screw		2
	177	VYH5539-001	Sheild Plate		1
	178	SDST2004Z	Screw		2
	179	SBSF2606Z	〃	F. Tuning	2
	180	VYH3291-001	Shield		1
	181	VYH5586-001	〃		1
	182	VYSS1R5-014	Spacer		1
	183	———	Din Jack P.C. Board		1
	184	VYTN421-001	Shield		1
	185	VJD4003-032	Plate	PC-W300LD only for Antenna Terminal	1
	186	VYH5587-001	Din Bracket		1
	187	VYH5012-002	Terminal Lug	PC-W300LD only	1

Mechanical Component Parts List (Deck-B)

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		V44743-001	Monohira		5
	1	VKL1223-00C	Chassis Base Ass'y		1
	2	VKL3448-001	F/R Switch Cam		1
	3	VKL3449-001	Motor Switch Cam		1
	4	VKL3450-001	Lock Cam		1
	5	VKL3451-002	MS. Cam		1
	6	Q03093-631	Washer		2
	7	VKL5421-002	C.R. Lever (B)		1
	8	VKL5635-00A	Direction Lever Ass'y		1
	9	REE1500	E. Ring		1
	10	VHS1130-001	Leaf Switch		1
	11	SPSH2040M	Mini Screw		1
	12	VKW3002-127	Tension Spring	Lock Cam	1
	13	VKW4413-001	C.R. Lever Spring		1
	14	VKS4600-001	Cassette Guide		2
	15	SPSH2040M	Mini Screw	Cassette Guide	2
	16	VKS4541-001	Guide Post		1
	17	SPSH2080M	Mini Screw		1
	18	VKS4542-002	Lock Arm		1
	19	VKH3001-056	Flange Collar		1
	20	LPSP2005Z	Screw	Lock Arm	1
	21	VKW3002-128	Tension Spring	〃	1
	22	VKY4300-001	Pack Spring		1
	23	VSH1123-004	Leaf Switch		3
	24	SPSH1755M	Mini Screw		3
	25	VKS3163-001	Auto Safety Lever		1
	26	VKW3008-003	Torsion Spring		1
	27	VKL3452-00G	But. Frame Ass'y		1
	32	SSSK2030M	Screw	Button Bracket Frame	2
	33	VKP3000-00D	P. Roller Arm Ass'y	FWD.	1
	34	〃 -00E	〃	REV.	1
	35	VKW4415-002	P. Roller Spring	FWD.	1
	36	VKW4416-002	〃	REV.	1
	37	VKZ4004-002	Special Washer		2
	38	VKZ3108-002	Slide Base (1)		1
	39	VKL5423-001	Slide Base (2)		1
	40	VKW3002-129	Tension Spring	Slide Base	1
	41	VKL3454-00E	H. Mount Base Ass'y		1
	47	VGH0425-517	R/P & E. Head Ass'y		1
	48	VKZ4216-001	Wire Stopper		1
	49	VKZ4223-001	Head Screw		2
	50	SPSH2018M	Mini Screw		1
	51	VKZ4001-013	Wire Clamp		3
	52	T41615-004	Steel Ball		1
	53	SPSH2025M	Screw		1
	54	VKY4301-001	Head Base Spring		1
	55	SPSH2025M	Screw		3
	56	VKS4544-00E	Dir. Trigger Ass'y		1
	57	VKW3008-002	Torsion Spring		1
	58	VKR3109-002	Cam Gear (A)		1
	59	VKR3110-002	〃 (B)		1
	60	VKS4546-002	C.R. Lever (C)		1
	61	VKS4591-00B	C.R. Trigger Ass'y		1
	62	VKW4409-001	C.R. Trigger Spring		1
	63	VKR3111-002	C.R. Cam Gear		1
	64	VKS4548-001	Play Lever		1
	65	VKW3002-131	Tension Spring	Play Lever	1
	66	VKR3112-002	Play Cam Gear		1
	67	VKS4604-002	Synchro Lever		1
	68	VKZ4004-002	Special Washer		9

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
⚠	69	VGP0704-004	D.C. Solenoid		1
	70	SPSH2080M	Mini Screw		1
	71	VKL3496-001	Rec. Slide Bar		1
	72	VKS4550-001	Rec. Select Lever		1
	73	VKW3002-132	Tension Spring		1
	74	VKL5512-001	Recording Lever		1
	75	REE3000	E. Ring		1
	76	VKW3002-132	Tension Spring		1
	77	VKF3128-00A	Flywheel Ass'y		1
	78	VKF3127-00A	〃		1
	79	Q03093-828	Washer		2
	80	Q03093-522	〃	Oil Cut	2
	81	VKS4552-004	Pause Lock Cam		1
	82	VKW3001-122	Compression Spring		1
	83	VKZ4004-002	Special Washer		1
	84	VKB3001-010H	Capstan Belt		1
	85	VKB3000-070	Belt	Reel	1
	86	VKL3497-001	F.M. Bracket		1
	87	VKS3171-001	Thrust Plate		1
⚠	88	BFB9L71	DC Motor		1
	89	VKR4364-001	Motor Pulley		1
	90	SPSH2630M	Mini Screw		2
	91	SPSH2025M	Screw	F.M. Bracket	2
	92	VSH1123-005	Leaf Switch	Direction/Muting	3
	93	VKZ4218-001	Special Screw		3
	95	VKL2195-00B	R. Disk Bracket Ass'y		1
	96	VKR3113-001	Reel Feather		2
	97	VKH3012-024	Shaft		2
	98	This DWG	Compresion Spring		1
	99	VKR4331-001	Counter Pulley		2
	100	VKS4553-001	Auto Lever (1)		2
	101	VKS4554-001	Bushing		2
	102	VKS3185-001	Auto Stop Bar		1
	103	VKR4332-001	Reel Gear (R)		1
	104	VKR4333-001	〃 (L)		2
	105	VKR4334-001	F/R Gear (2)		2
	106	VKR4382-001	Middle Gear		1
	107	VKR4336-002	Cam Gear		1
	108	VKR4337-003	Main Pulley		1
	109	VKR4338-00C	Main Pulley Ass'y		1
	110	VKR4340-00B	T-Up Gear Ass'y		2
	111	VKZ4004-013	Special Washer		9
	112	VKW3002-152	Spring	FF	1
	113	〃 -151	Tension Spring		2
	114	SPSH2025M	Screw		4
	116	VKS2124-00F	Selector Unit Ass'y		1
	117	SPSH2025M	Screw		3
	118	VKW3006-090	Torsion Spring	Rec. Safety	1
	119	VKS3174-001	Rec. Safety Lever		1
	120	VKS3175-001	Rec. Safety (R1)		1
	121	VKS4578-002	〃 (R2)		1
	122	VKS3177-001	Head Bar		1
	123	VKS4568-001	Center Block		1
	124	VKW3006-087	Torsion Spring		1
	125	〃 -086	〃		1
	126	SPSH2025M	Screw		1
	127	VKL3458-002	U-Rec. Bar		1
	128	VKW3002-133	Tension Spring	U-Rec. Bar	1
	129	VKW4414-001	Torsion Spring	〃	1
	133	VMW3201-001	P.C. Board		1
	134	WBS2000N	T. Lock Washer		1

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	135	LPSP2005Z	Screw		1
	136	VMW4671-001	P.W. Board	Leaf Switch	1
	137	VKZ4004-002	Special Washer		2
	138	VKW3002-156	Tension Spring	Stop/Eject Bar	1
	142	VKW3002-153	Spring	Rew	1
	143	VKW4447-001	Tension Spring		2
	145	VKW4458-001	Spring		1

Comparison Table between Deck A and Deck B

Ref. No.	Deck A Parts No.	Q'ty	Deck B Parts No.	Q'ty	Parts Name
27	VKL3452-00H	1	VKL3452-00G	1	Button Frame Ass'y
47	VGH0424-011	1	VGH0425-517	1	R/P & E Head Ass'y
48	VKZ4225-001	1	VKZ4216-001	1	Wire Stopper
67	VKS4549-004	1	VKS4604-002	1	Synchro Lever
74	———		VKL5512-001	1	Rec. Lever
75	———		REE3000	1	E. Ring
76	VKW3002-128	1	VKW3002-132	1	Tension Spring
92	VSH1123-005	2	VSH1123-005	3	Leaf Switch
93	VKZ4218-001	2	VKZ4218-001	3	Special Screw
102	VKS4555-001	1	VKS3185-001	1	Auto Stop Bar
112	VKW3002-134	1	VKW3002-152	1	Tension Spring
142	〃 -142	1	〃 -153	1	〃
118	———		VKW3006-090	1	Torsion Spring
119	———		VKS3174-001	1	Rec. Safety (L)
120	———		VKS3175-001	1	〃 (R1)
121	———		VKS4578-002	1	〃 (R2)
124	———		VKW3006-087	1	Torsion Spring
125	———		〃 -086	1	〃
127	———		VKL3458-002	1	U-Rec. Bar
128	———		VKW3002-133	1	Tension Spring
129	———		VKW4414-001	1	Torsion Spring

Mechanical Component Parts

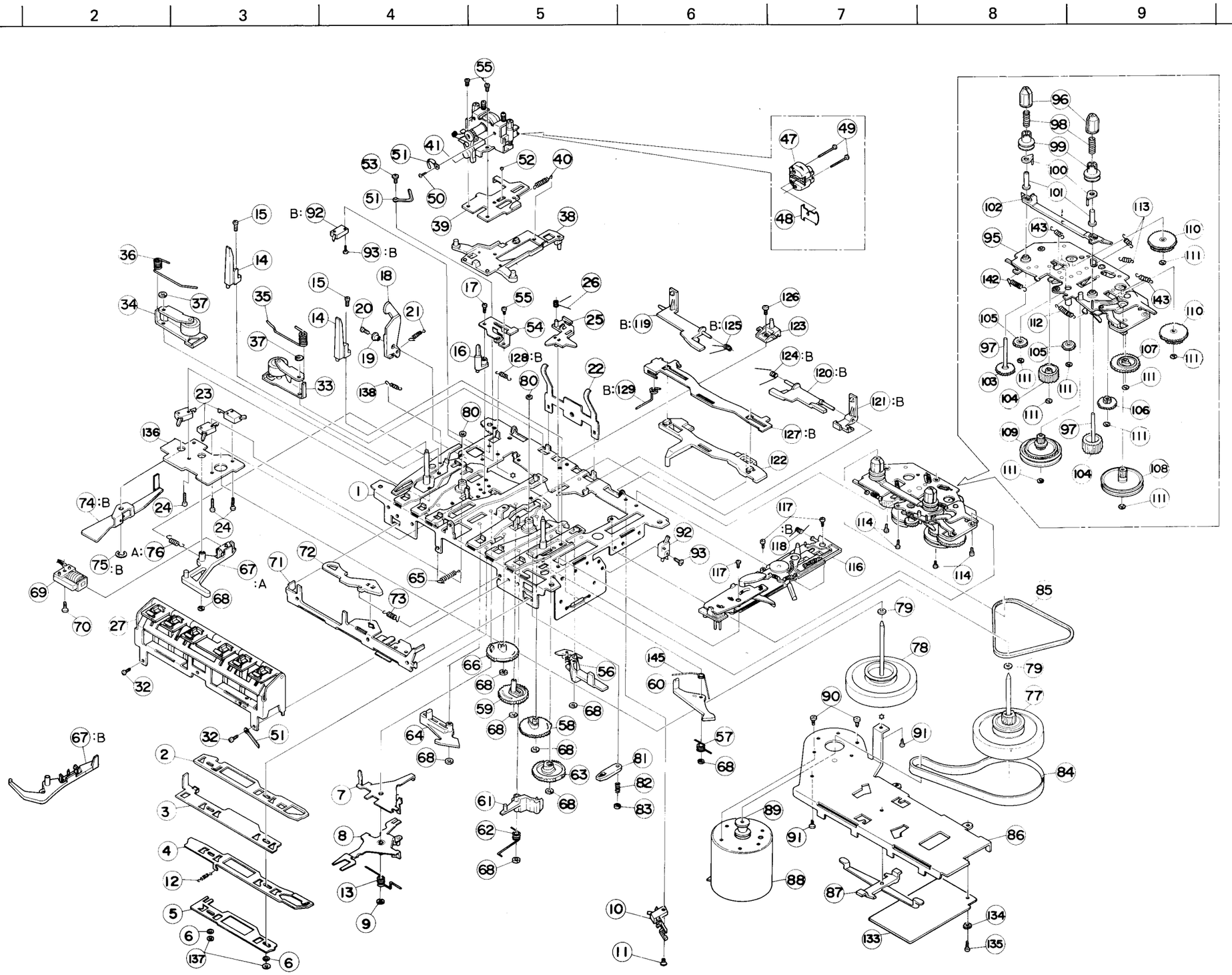


Fig. 39

Exploded View, Connection Figure and Parts List for speaker

Replacement of speaker (Refer to the exploded view)
1. Remove 2 screws (28) then front cover (1) or (2).
2. Remove 6 screws (11) and (13) to take out the speaker.

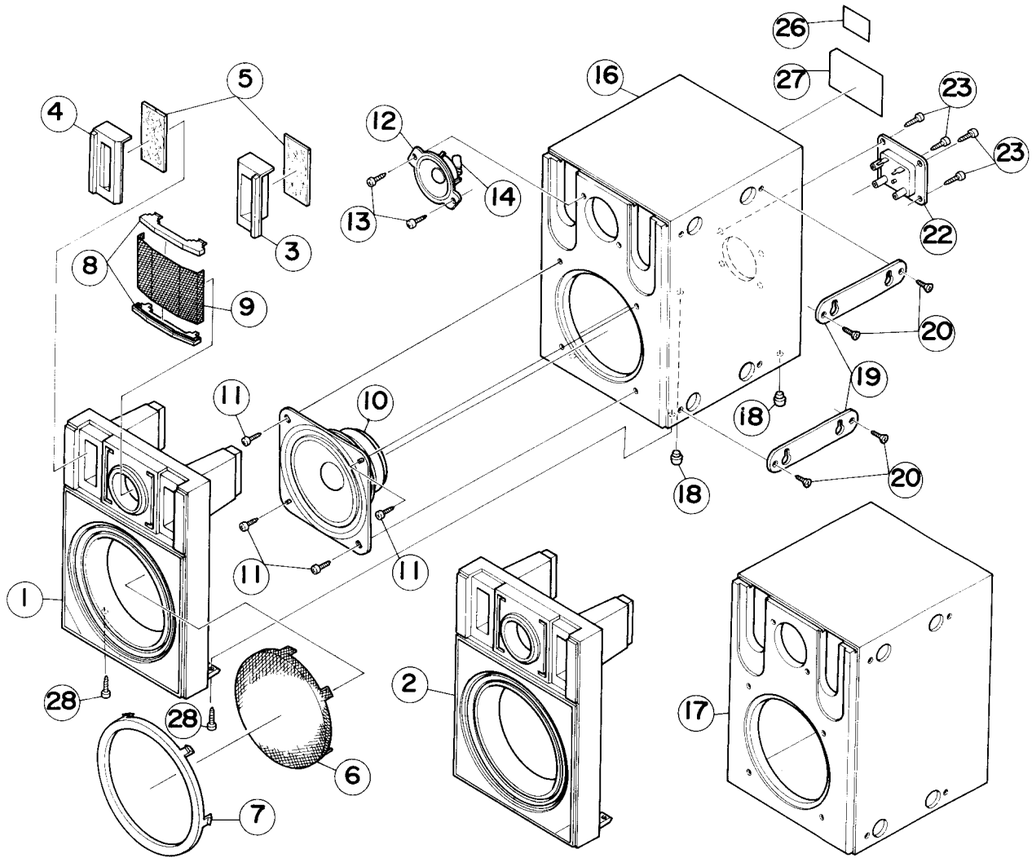


Fig. 40

Speaker System Component Parts

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		ZCPCWB300Y-FSL	Front Panel Ass'y	Left	1
		〃 -FSR	〃	Right	1
	1	VJC1323-013	Front Panel	Left Side	1
	2	〃 -014	〃	Right Side	1
	3	VJD3445-001	S.P. Escutcheon		1
	4	VJD3445-002	〃		1
	5	VYSB1R1-005	Spacer		2
	6	VJD3295-001	Speaker Net	for Woofer	1
	7	VJD2215-001	Speaker Ring		1
	8	VJD2215-002	〃	Fitting	2
	9	VJD4759-002	Punching Panel	for Tweeter	1
	10	EAS12P261S	Speaker	Woofer	1
	11	SDSA3012Z	Screw		4
	12	EAS5PH04ST	Speaker		1
	13	SDSA3012Z	Screw		2
	14	VCE0002-225	Np, E. Capacitor		1
	16	VJC2132-001	Speaker Case	Left Side	1
	17	VJC2132-002	〃	Right Side	1
	18	VJF4009-001	Foot		2
	19	VYH4891-004	Plate		2
	20	SSSA3012N	Screw		4
	22	VMZ0026-001	SPK Terminal		1
	23	SDSA3012N	Screw		4
	26	VNC5003-206	Serial Label		1
	27	VYNA315-002	Name Plate		1
	28	SDSA3012Z	Screw		2

Connection Figure

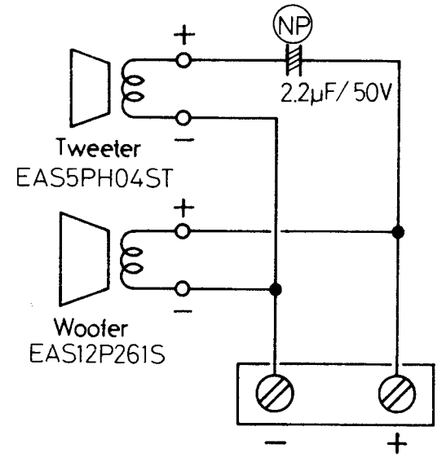


Fig. 41

Packing

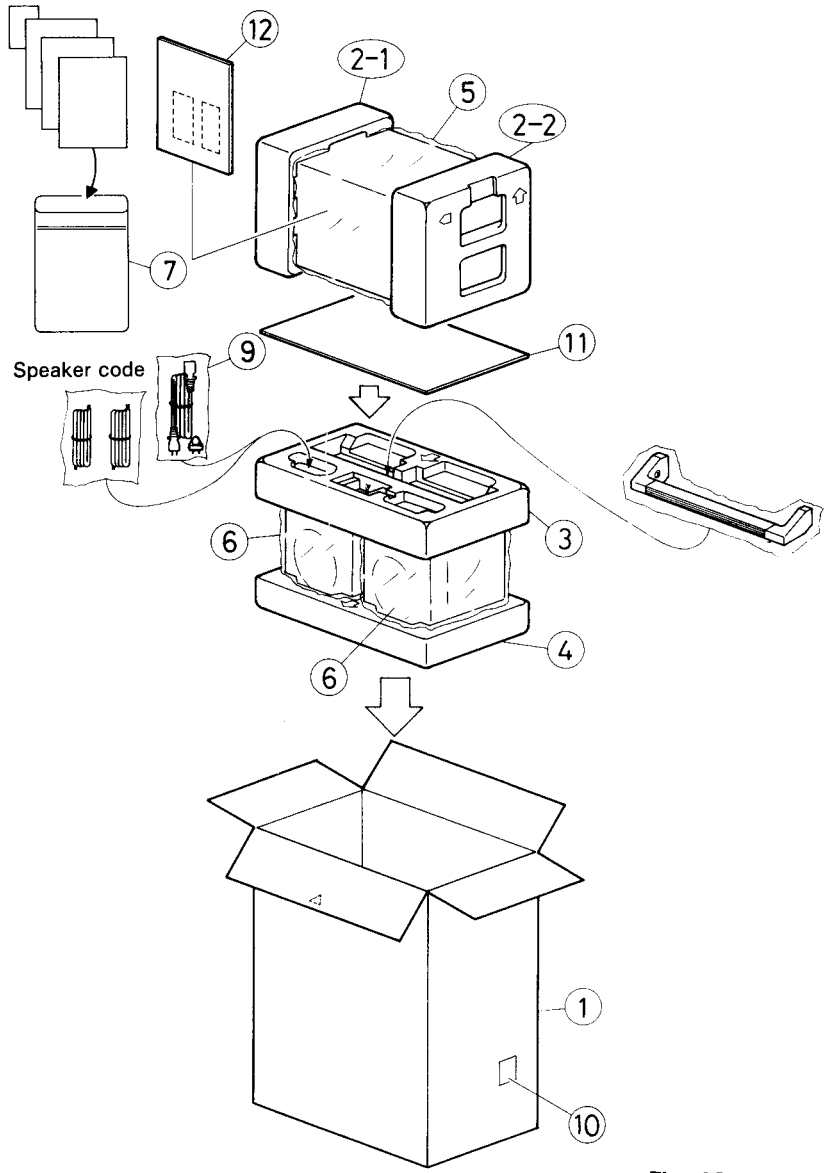


Fig. 42

Packing Parts List

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1	VPD7014-J04	Carton	PC-W300LB	1
	〃	〃 -J05	〃	PC-W300L	1
	〃	〃 -J08	〃	PC-W300LD	1
	2-1	VPH1288-001	Side Cushion	Left side for Receiver	1
	2-2	VPH1289-001	Side Cushion	Phight side for Receiver	2
	3	VPH1287-001	Cushion	Upper Side for Speaker	1
	4	VPH1286-001	〃	Lower Side for Speaker	1
	5	VPE3004-025	Poly Bag	for Receiver	1
	6	QPGA040-05005	〃	for Speaker	2
	7	VPE3004-007	〃	for Inst. Book	1
	9	QPGA012-01505	Envelope	for Power Cord	1
	10	VPZ4001-001	Serial Ticket		1
	11	VPK4144-005	Spacer		1
	12	VPK3170-001	Cushion		1
	—	VPK4002-008	Sheet	for Receiver	1

Accessories

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

⚠	Part No.	Parts Name	Remarks	Q'ty
	VNM0939-301	Instruction Book		1
⚠	QMP3950-183	Power Cord	PC-W300L/LD	1
⚠	QMP9017-009BS	〃	PC-W300LB	1
	VMP0035-001	Speaker Cord		2
	BT20060	Guarantee Certificate	PC-W300LB	1
	BT20066	〃	PC-W300LB/LD	1
	QZL1002-003	Warranty Lavel	PC-W30LB	1
	31465-18	Mark	PC-W300LB	1
	VJH3019-00H	Handle Ass'y		1
	VNF0160-001	Featur Sticker	Left	1
	VNF0160-002	〃	Right	1
	BT20065	Warranty Card	PC-W300LD	1
	BT20054-003A	Caution Sheet	PC-W300LD	1

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